CATALOG 112 PTG

KLEIN TOOLS

KLEIN-BUHRKE SAFETY EQUIPMENT

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WESTERN HARDWARE & TOOL CO.
450 Bryant St. San Francisco, California 94107
"The Lineman's Mail Order House"

MATHIAS KLEIN & SONS, INC.

Over a century of experience manufacturing tools and safety equipment for

- **LINEMEN**
- **ELECTRICIANS**
- **ELECTRONICS INDUSTRY**
- **GENERAL INDUSTRY**

NOTE: NEW ADDRESS
450 BRYANT STREET
SAN FRANCISCO, CALIF. 94107
PHONE 781-1038

MATHIAS KLEIN & SONS INC.

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450 Bryant St. San Francisco, California 94107
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Catalog 112 PTG

MAIN PLANT
MATHIAS KLEIN & SONS, INC.
CHICAGO, ILLINOIS

KLEIN QUALITY "SINCE 1857"

For more than a century, the name Klein has stood for the finest in tools and equipment. That reputation for quality has been won by a combination of the most modern facilities, the highest standard of workmanship and by individual inspection and testing to make sure that every tool is worthy of the name Klein.

The name Klein is, of course, envied by others and has been widely imitated. Suffice it to say that while the designs and patterns that Klein originated and made famous have been widely copied, no one has ever been able to equal Klein quality. That's why Klein still remains the standard of comparison by which other tools are judged.

While the importance of safety was always recognized in the design and manufacture of all Klein tools and equipment, the increased demands for specially designed safety harness, straps, belts, buckets and other equipment both in the utility and industrial fields led to the acquisition of the R. H. Buhrke Company, an important name in the safety field since 1890.

Today Klein with its subsidiary, R. H. Buhrke Co., is in a position to offer electricians, electrical contractors, utilities, electronic manufacturers and industry in general a complete line of tools and safety equipment to meet every need.

Every genuine Klein tool or piece of Klein-Buhrke equipment is identified with the Klein or Klein-Buhrke trade name or trade-mark. To assure maximum quality and maximum satisfaction be sure that the equipment you buy is identified as being genuine.

OVER 100 YEARS OF SERVICE TO THE ELECTRICAL INDUSTRY

When Mathias Klein opened his forge shop in 1857, Chicago was but a village on the American frontier. The Electrical Industry was taking its first uncertain steps with the coming of the telegraph. Since there were no adequate tools for the early linemen to use, they improvised as best they could.

As construction crews moved westward, bringing speedy communication to the outlying towns, some of the workmen heard of the reputation Mathias Klein had won for his skill and high-quality workmanship.

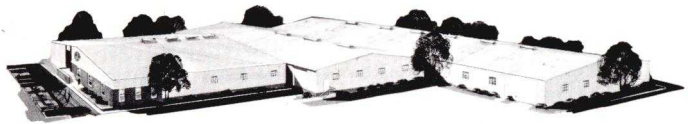
At their suggestion, he designed and forged a sturdy plier to meet the special needs of line construction work—so a new industry was born.

By word of mouth, information was passed along that at Mathias Klein's Forge Shop you could buy tools which would give better performance, last longer and result in more general satisfaction.

Business grew; and as the telephone followed the telegraph, as power lines opened up new possibilities to industry, as railways expanded, the demand for Klein quality tools continued to grow.

The electronics field opened up a wide use of Klein Pliers, for manufacturers found that these quality tools saved workers time in any wiring assembly. Home workers, proud of the work they did, also were satisfied with nothing less than Kleins. And so, the call went for more highly specialized and better types of equipment for all electrical work.

If the success of Mathias Klein & Sons can be described by one word, that word is "quality." This is as true today as it was more than a century ago when the company was founded.



KLEIN-BUHRKE PLANT
FORT SMITH,
ARKANSAS

STATEMENT OF QUALITY

Genuine Klein tools and Klein-Buhrke equipment are manufactured with utmost care to insure quality of material and workmanship. Each product is thoroughly inspected before shipment. Any product proving unsatisfactory as to either material or workmanship should be returned directly to us for inspection and adjustment of complaint. Distributors are not authorized to adjust complaints or make replacements.

If we find the claim substantiated, we will gladly make replacement but we cannot be expected to replace equipment that has been misused or that has suffered accidental damage. In no case will replacement be made of tools showing evidence of grinding, filing or re-tempering.

GUARANTEE

All Klein products are guaranteed against defect in material and workmanship.

Any equipment which, on examination, is found to be defective will be replaced without charge, but none will be replaced if it shows evidence of having been tampered with or if it has been improperly used.

KLEIN DISTRIBUTION

To serve users of electricians' and linemen's tools and equipment, Klein has developed an extensive distribution through electrical wholesalers, safety supply houses, and industrial distributors. These distributors stock Klein tools and equipment and are in a position to render prompt service. On items they do not stock, they will receive prompt delivery from the factory. Order through your local distributor. Writing to the factory will only delay your shipment.

KLEIN PLIERS

All Klein Pliers are drop forged from high-grade alloy tool steel made specifically to our analysis. Every plier is individually fitted, tempered, adjusted and tested. The test in every case is far in excess of any pressure that could be applied by hand.

Klein Pliers have long been recognized as the standard by which other pliers are judged. This is why Kleins are preferred everywhere by men who know good tools.

HIGH LEVERAGE PLIER

U. S. Patent No. 2,746,145
Can. No. 532,760

Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D213-9	9 1/4	1 19/32	1 5/16	5/8	25/32	13 1/2 lb.
213-9	With plain handles					12 1/2 lb.

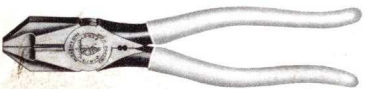
SIDE CUTTING PLIER

Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D201-6	6 1/4	1 3/32	29/32	1/2	9/16	5 1/2 lb.
201-6	With plain handles					5 1/4 lb.
D201-7	7 5/16	1 9/32	1 5/32	1/2	5/8	7 1/2 lb.
201-7	With plain handles					7 1/4 lb.
D201-8	8 1/2	1 7/16	1 7/32	5/8	23/32	11 1/2 lb.
201-8	With plain handles					11 1/4 lb.
D201-9	9 1/4	1 19/32	1 5/16	5/8	25/32	13 1/2 lb.
201-9	With plain handles					13 1/4 lb.

SIDE CUTTING PLIER
(WITH SLEEVE TWISTERS)



Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D212-7	7 5/16	1 9/32	1 5/32	1/2	5/8	7 1/2 lb.
212-7	With plain handles					7 1/4 lb.
D212-8	8 1/2	1 7/16	1 7/32	5/8	23/32	11 1/2 lb.
212-8	With plain handles					11 1/4 lb.

SLEEVE OPENINGS

In 6-in. and 7-in. pliers for Nos. 14 and 17 N.B.S. and No. 12 B. & S. (.045). In 8-in. pliers for No. 12 N.B.S. and No. 10 B. & S. (.104).

HIGH LEVERAGE PLIER
NE TYPE (STREAMLINED)

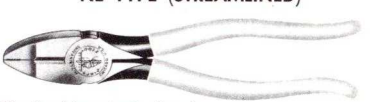
U. S. Patent No. 2,746,145
Can. No. 532,760

Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D213-8NE	8 1/2	1 7/16	1 7/32	5/8	23/32	11 1/4 lb.
HD213-8NE	With Hi Dielectric yellow handles					11 1/2 lb.
213-8NE	With plain handles					11 lb.
D213-9NE	9 1/4	1 19/32	1 5/16	5/8	25/32	13 1/2 lb.
HD213-9NE	With Hi Dielectric yellow handles					13 1/2 lb.
213-9NE	With plain handles					12 1/2 lb.

SIDE CUTTING PLIER
NE TYPE (STREAMLINED)



Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D201-6NE	6 1/4	1 3/32	29/32	1/2	9/16	5 1/2 lb.
201-6NE	With plain handles					5 1/4 lb.
D201-7NE	7 5/16	1 9/32	1 5/32	1/2	5/8	7 1/2 lb.
201-7NE	With plain handles					7 1/4 lb.
D201-8NE	8 1/2	1 7/16	1 7/32	5/8	23/32	11 1/2 lb.
201-8NE	With plain handles					11 1/4 lb.
HD201-8NE	With Hi Dielectric yellow handles					11 3/4 lb.
D201-9NE	9 1/4	1 19/32	1 5/16	5/8	25/32	13 1/2 lb.
201-9NE	With plain handles					13 1/4 lb.

SIDE CUTTING PLIER
NE TYPE (STREAMLINED)
WITH SLEEVE TWISTERS

Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D212-6NE	6 1/4	1 3/32	29/32	1/2	9/16	5 1/2 lb.
212-6NE	With plain handles					5 1/4 lb.
D212-7NE	7 5/16	1 9/32	1 5/32	1/2	5/8	7 1/2 lb.
212-7NE	With plain handles					7 1/4 lb.
D212-8NE	8 1/2	1 7/16	1 7/32	5/8	23/32	11 1/2 lb.
212-8NE	With plain handles					11 1/4 lb.

SLEEVE OPENINGS

In 6-in. and 7-in. pliers for Nos. 14 and 17 N.B.S. and No. 12 B. & S. (.045). In 8-in. pliers for No. 12 N.B.S. and No. 10 B. & S. (.104).

THREAD-HOLDING HIGH LEVERAGE PLIER

N E TYPE (STREAMLINED)

U. S. Patent No. 2,746,145
Can. No. 532,760

⅛" Dia. 11 Thread

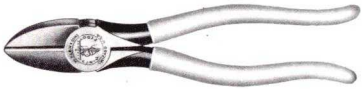
⅝ in. threaded opening permits holding threaded end of bolt without danger of stripping threads when removing or installing hardware on poles. Keeps all work on one side of pole. Installations are easier and safer. Handles blue plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D213-9NE-TH	9 ¼	1 19/32	1 5/16	5/8	25/32	13 ½ lb.
HD213-9NE-TH	With Hi Dielectric yellow handles					13 ½ lb.
213-9NE-TH	With plain handles					

OBLIQUE CUTTING PLIER

Heavy-Duty Pattern with "Handform" Handles



Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D220-7	7 11/16	1	31/32	½	7 ¼ lb.
220-7	With plain handles				7 lb.

HIGH LEVERAGE OBLIQUE CUTTING PLIER

Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D228-8	8	13/16	1 3/16	7/16	7 lb.

HIGH LEVERAGE OBLIQUE CUTTING PLIER

Bent Handles—Knives Flush. No Top Bevel

For cutting soft metal or plastics

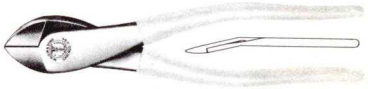
Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D238-8	8	13/16	1 3/16	7/16	7 ¼ lb.

HIGH LEVERAGE OBLIQUE CUTTING PLIER

Bent Handles—Knives with Top Bevel



Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D248-8	8	13/16	1 3/16	7/16	7 ¼ lb.

HIGH LEVERAGE OBLIQUE CUTTING PLIER

Two skinning holes for 12- and 14-gauge wire

Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D243-8	8	13/16	1 3/16	7/16	7 ¼ lb.

*For dimension drawings of Klein Pliers, see page 19.

OBLIQUE CUTTING PLIER

Short Nose Heavy-Duty Pattern with "Handform" Handles

Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D220-7SN	7 1/4	5/8	31/32	1/2	7 lb.
220-7SN	With plain handles				6 3/4 lb.

OBLIQUE CUTTING PLIER

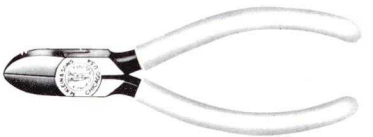
Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D245-5	5	11/16	9/16	3/8	3 lb.
D245-5C	Same as above with coil spring,				3 lb.
245-5	With plain handles				2 3/4 lb.

OBLIQUE CUTTING PLIER

With "W" Stripping Notches



Handles red plastic dipped

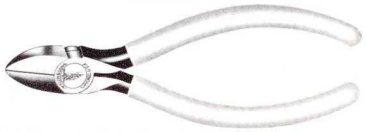
Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D245-5-W	5	11/16	9/16	3/8	3 lb.

For description on coil springs see page 18

OBLIQUE CUTTING PLIER

Narrow Nose



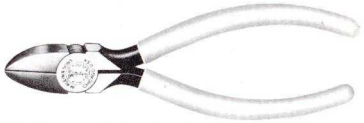
Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D202-5	5 1/2	13/16	11/16	7/16	4 lb.
D202-5C	Same as above with coil spring				
202-5	With plain handles				3 3/4 lb.
D202-6	6 1/16	13/16	11/16	7/16	4 1/4 lb.
D202-6C	Same as above with coil spring				
202-6	With plain handles				4 lb.

OBLIQUE CUTTING PLIER

Heavy-Duty Pattern



Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D252-6	6	13/16	3/4	7/16	4 1/4 lb.

OBLIQUE CUTTING PLIER

Flush Cutting

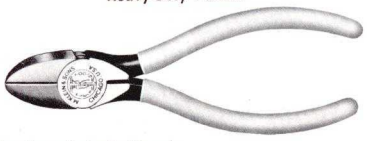
For plastic trimming or printed circuit board work Handles red plastic dipped. Supplied with coil spring.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D210-5C	5 1/2	13/16	11/16	7/16	3 3/4 lb.
D210-6C	6 1/16	13/16	11/16	7/16	4 lb.

OBLIQUE CUTTING PLIER

Heavy-Duty Pattern



Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D242-6	6	13/16	7/8	1/2	4 3/4 lb.
242-6	With plain handles				4 1/2 lb.

OBLIQUE CUTTING PLIER

Sleeve Openings and .052" Skinning Hole

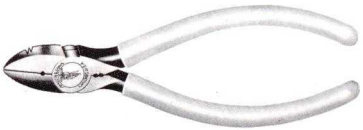
Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D240-5-S	5 1/2	13/16	11/16	7/16	4 lb.

OBLIQUE CUTTING PLIER

Bell System Type



With "W" stripping notches, sleeve openings, and .052" skinning hole.
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D202-5-SW	5 1/2	13/16	11/16	7/16	4 lb.
202-5-SW	With plain handles				3 3/4 lb.
D252-6-SW	6	13/16	3/4	7/16	4 1/4 lb.
252-6-SW	With plain handles				4 lb.

OBLIQUE CUTTING PLIER

Bell System Type "V" Notch Pattern

Designed for work on switchboards.
"W" notch is provided to slit insulation.
"V" notch at hinge to crush insulation.
Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D528-V	5	5/8	9/16	3/8	2 3/4 lb.

OBLIQUE CUTTING PLIER

With .052" Skinning Hole

Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D240-5	5 1/2	13/16	11/16	7/16	4 lb.
D240-6	6 1/16	13/16	11/16	7/16	4 1/4 lb.
240-6	With plain handles				4 lb.

HIGH LEVERAGE END CUTTING PLIER

Permits cutting wire or nails close to work. "Hand-form" handles as used in Klein Side Cutting Pliers.
Handles green plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D232-8	7 23/32	7/8	1 1/2	1/2	1 1/2	7 3/4 lb.

*For dimension drawings of Klein Pliers, see page 19.

LONG NOSE PLIER

Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D301-5	5 9/16	1 9/16	11/16	3/8	3/32	3 1/4 lb.
D301-5C	Same as above but with coil spring					
301-5	With plain handles					3 lb.
D301-6	6 5/8	1 15/16	11/16	3/8	3/32	4 lb.
D301-6C	Same as above but with coil spring 1/4" point					
301-6	With plain handles					3 3/4 lb.
D301-7	7 1/8	2 7/16	11/16	3/8	3/32	4 1/4 lb.
D301-7C	Same as above but with coil spring					
301-7	With plain handles					4 lb.

LONG NOSE SIDE CUTTING PLIER

Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D203-5	5 9/16	1 9/16	11/16	3/8	1/2	3/32	3 1/4 lb.
D203-5C	Same as above but with coil spring				Point 1/16		3 1/4 lb.
203-5	With plain handles						3 lb.
D203-6	6 5/8	1 15/16	11/16	3/8	1/2	3/32	4 lb.
D203-6C	Same as above but with coil spring				Point 1/16		4 lb.
203-6	With plain handles						3 3/4 lb.
203-6C	With plain handles and coil springs.						4 lb.
D203-7	7 1/8	2 7/16	11/16	3/8	1/2	3/32	4 1/4 lb.
D203-7C	Same as above but with coil spring				Point 1/16		4 1/4 lb.
203-7	With plain handles						4 lb.

LONG NEEDLE NOSE PLIER

Similar to 301 series but with point only 1/16 in. diam.
Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D303-6	6 5/8	1 15/16	11/16	3/8	1/16	4 lb.
303-6	With plain handles					3 3/4 lb.

For description on coil springs see page 18

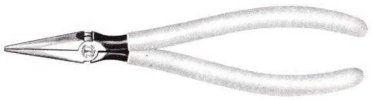
CHAIN NOSE PLIER

Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D317-6	5 15/16	1 3/16	11/16	3/8	—	3/32	3 3/4 lb.
D217-6	5 15/16	1 3/16	11/16	3/8	1/2	3/32	3 1/2 lb.
	With side cutting knives.						

8 in. LONG NOSE PLIER
NEW IMPROVED DESIGN

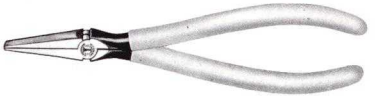


Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D314-8	8	1 15/16	11/16	3/8	3/32	4 3/4 lb.
With knurl.						

8 in. DUCK BILL PLIER
NEW IMPROVED DESIGN



Handles yellow plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D315-8	8	1 9/16	11/16	3/8	3/32 x 17/64	4 3/4 lb.
With knurl.						
D312-8	8	1 9/16	11/16	3/8	3/32 x 17/64	4 3/4 lb.
Without knurl.						

LONG NOSE CUTTING PLIER

Heavy-Duty Pattern

"Handform" handle, 203-8N has skinning hole for #12 B & S insulated wire.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D203-8	8 5/16	2 5/16	1	1/2	5/8	1/8	8 1/4 lb.
203-8	With plain handles						8 lb.
D203-8N	8 5/16	2 5/16	1	1/2	5/8	1/8	8 1/4 lb.
203-8N	With plain handles						8 lb.

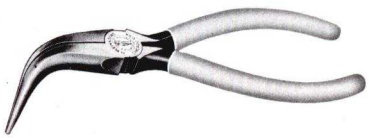
LONG NOSE SIDE CUTTING PLIER

Similar in design to 203 but with two notches designed to strip insulated wire gauges 19 and 22. Designed for telephone switchboard work.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D203-6-H2	6 5/8	1 15/16	11/16	3/8	1/2	3/32	4 lb.

CURVED NOSE PLIER

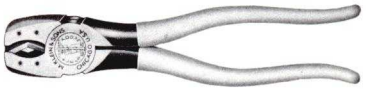


Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D302-6	6 1/4	1 1/2	11/16	3/8	1 3/4	3/32	3 1/2 lb.

HIGH LEVERAGE A C S R CUTTER
HIGH LEVERAGE COAXIAL CUTTER

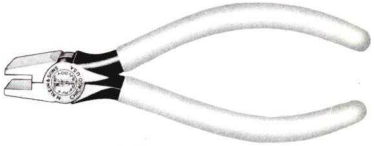


Developed for cutting A C S R up to and including No. 1/0. Knives make clean cut in aluminum strands and do not injure core. Knives easily replaced.
Handles blue plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D055	8 5/8	1	1 1/4	5/8	13 lb.
055	With plain handles				12 3/4 lb.
055-K	Pair of extra knives				1/2 lb.
	(Not illustrated) For cutting small coaxial cable.				
D047	8 5/8	1	1 1/4	5/8	13 lb.
047	With plain handles				12 3/4 lb.
047-K	Pair of extra knives				1/2 lb.

CONNECTOR CRIMPING PLIER



Designed to seat UG and UR connectors
Stop behind cutout prevents damage to connectors
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D334-5	5 3/8	5/8	11/16	3/8	3 lb.

*For dimension drawings of Klein Pliers, see page 19.

DUCK BILL PLIER

Inside Jaws Polished

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D306-5 1/2	5 13/16	1 3/4	17/32	5/16	1/8	3 lb.
D306-5 1/2 C	Same as above but with coil spring,					

DUCK BILL PLIER

Inside Jaws Smooth

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D304-6	6 1/2	2 5/16	11/16	3/8	—	3/8	4 lb.
D205-6	6 1/2	2 5/16	11/16	3/8	1/2	3/8	3 3/4 lb.
	With side cutting knives.						

FLAT NOSE PLIER

Inside Jaws Knurled

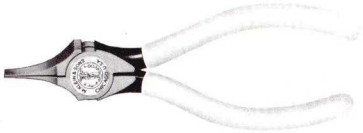
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D305-6	6 1/2	2 5/16	11/16	3/8	—	5/16	4 lb.
D206-6	6 1/2	2 5/16	11/16	3/8	1/2	5/16	3 3/4 lb.
	With side cutting knives.						

For description on coil springs see page 18

RELAY SPRING ADJUSTING PLIER



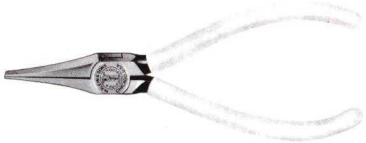
Inside Jaws Polished

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D325-5	5 1/16	7/8	11/16	3/8	5/32x1/16	3 lb.

SPRING ADJUSTING PLIER



Inside Jaws Polished

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D326-5	5 3/16	1 3/16	17/32	5/16	5/32x1/16	3 lb.

RELAY SPRING ADJUSTING PLIER

Hollow ground on the outside of jaws, to reach between and grasp springs easily. Inside jaws polished. Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D311-5 1/2	5 15/16	1 5/8	11/16	3/8	9/32x1/16	3 1/2 lb.
311-5 1/2	With plain handles					3 1/4 lb.

HEAT COIL PLIER

Nose is shaped to fit heat coils. Also, helpful in holding cylindrical objects.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D313-6	6	1 13/16	11/16	3/8	11/32	3 3/4 lb.

LONG NOSE SLEEVE PLIER

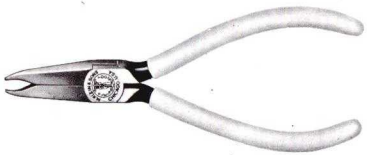
(Bell System Type)

Identical with No. 301-6 but with sleeve openings for twisting No. 17 N.B.S. and smaller copper sleeves.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D316-S	6 5/8	1 15/16	11/16	3/8	1/2	3/32	3 3/4 lb.

LAMP CAP EXTRACTOR

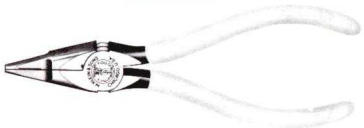


Specially designed to extract lamps from switchboards.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D319-B	5 1/4	1 1/4	1/2	5/16	1/32	2 1/2 lb.

LONG NOSE INSULATION SKINNER

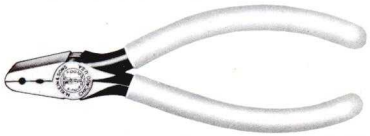


A special plier for telephone work designed to skin 22- or 24-gauge wire. Will crack insulation in slot provided in nose.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D2291	6	1 1/4	11/16	3/8	1/16	3 1/2 lb.

CORD-TIP CLOSING PLIER

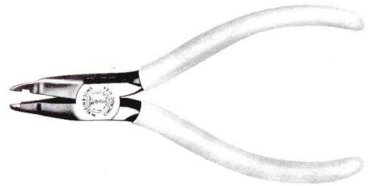


Sturdy jaws permit using plier as press for closing cord tips such as W.E. new Nos. 120 and 130. Diameter of holes are .129 in. and .156 in.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D039	57/16	3/4	11/16	3/8	3 1/2 lb.

SPECIAL SKINNING PLIER



This plier designed for cutting and skinning 24-gauge synthetic coated wire. Notch back of cutting blade crushes insulation. Sharp blade provides quick, clean cut. Tapered nose reaches into confined space.
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	Av. Wt. Per Doz.
D317-5P	5 1/4	7/8	1/2	5/16	1/4	2 1/2 lb.

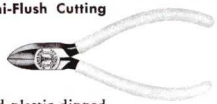
*For dimension drawings of Klein Pliers, see page 19.

SPECIALTY PLIERS FOR ELECTRONICS INDUSTRY

The electronics industry requires many pliers designed to meet highly specialized needs. Shown here are pliers developed by Klein engineers to serve this field. These pliers are supplied from stock. All long nose pliers have jaw edges rounded to prevent nicking wire.

OBLIQUE CUTTING PLIER

Semi-Flush Cutting



Handles red plastic dipped

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D257-4	4 3/16	1/2	7/16	1/4	1 1/4 lb.
D257-4C	Same as above but with coil spring,				

SHORT NOSE CUTTING PLIER

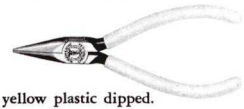
Semi-Flush Cutting

For trimming printed circuits or trimming plastics. Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D258-4C	4	3/16	7/16	1/4	1 1/2 lb.

LONG NOSE PLIER



Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D321-4 1/2	4 3/4	1 1/16	7/16	1/4	1/32 x 1/16	1 1/2 lb.
D321-4 1/2 C	Same as above but with coil spring					

LONG NOSE PLIER

Similar to D321-4½ but jaws are without knurl and jaw edges are radiused. Handles blue plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D322-4 1/2	4 3/4	1 1/16	7/16	1/4	1/32 x 1/16	1 1/2 lb.
D322-4 1/2 C	Same as above but with coil spring					

For description on coil springs see page 18

FLAT NOSE PLIER

Inside Jaws Polished

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D323-4 1/2	4 3/4	1 1/16	7/16	1/4	1/8 x 1/16	1 1/2 lb.
D323-4 1/2 C	Same as above but with coil spring,					1 1/2 lb.

TRANSVERSE END CUTTING PLIER

Semi-Flush Cutting

Handles green plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D224-4 1/2 C	4 5/8	15/16	7/16	1/4	1/8	1/8	1 1/2 lb.
D204-6C	6 1/4	1 1/2	11/16	3/8	1/2	5/32	3 3/4 lb.
	With coil spring						

OBLIQUE CUTTING PLIER

Lightweight, Pointed Nose, Semi-Flush Cutting

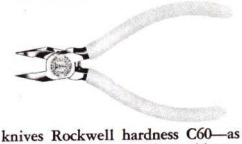
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D209-4C	4 3/16	1/2	7/16	1/4	1 lb.
D209-5	5	11/16	9/16	3/8	2 3/4 lb.
209-5	With plain handles				2 1/2 lb.
D209-5C	With plastic handles and coil spring				
209-5C	With plain handles and coil spring,				2 1/2 lb.

HIGH HARDNESS PLIER

For Cutting Nickel Ribbon Wire



Cutting knives Rockwell hardness C60—as hard as a file. Designed for cutting nickel ribbon wire. Nose 1/16 in. at tip, permitting use in confined space. Each plier is hand honed under a magnifying glass. Bevel on knife is less than .005 in. Cutting knife at tip 3/16 in. long. High Gloss Finnish Standard. Handles red plastic dipped. Supplied with coil spring.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D230-4C	4 3/16	1/2	1/2	7/16	1 1/4 lb.

MATRIX CUTTER

Semi-Flush Cutting

For Miniature Electronic Assemblies

Combines advantages of end cutter and diagonal cutter. Extra high hardness cutting blade for cutting nickel ribbon. Supplied with coil spring and red plastic dipped handles. High Gloss Finnish Standard.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D263-4C	4 in.	3/16	7/16	1/4	1 1/2 lb.

WIRE GRIPPING OBLIQUE CUTTER

Semi-Flush Cutting

Pat. No. 2,938,266

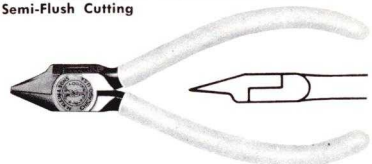
Similar in design to D209-5, but with steel springs between jaws to hold clipped ends of wire. Supplied with coil spring.
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D229-5C	5	11/16	9/16	3/8	2 3/4 lb.

OBLIQUE CUTTING PLIER

Semi-Flush Cutting



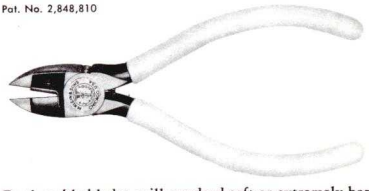
Similar in design to 209 Series, but relieved in the back to allow entry into confined areas.
Handles red plastic dipped. Supplied with coil spring.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D219-4C	4 3/16	1/2	7/16	1/4	1 1/2 lb.
D219-5C	5	5/8	9/16	3/8	2 3/4 lb.

OBLIQUE SHEAR CUTTING PLIER

Pat. No. 2,848,810

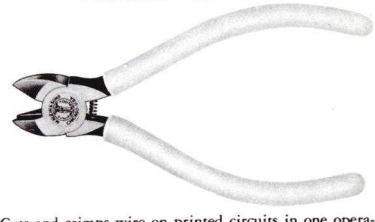


Replaceable blades, will cut dead soft or extremely hard wire. Supplied with coil spring.
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D207-5C	5 1/2	13/16	11/16	7/16	3 3/4 lb.
077-K	Replacement blade and screw.				3 3/4 lb.

OBLIQUE CUTTER FOR PRINTED CIRCUITS



Cuts and crimps wire on printed circuits in one operation. Holds wire in place permitting efficient dip soldering. Supplied with coil spring.
Handles red plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D052-C	5 1/8	7/16	11/16	3/8	3 lb.

*For dimension drawings of Klein Pliers, see page 19.

SLIM LONG NOSE PLIER

Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D307-5 1/2	5 13/16	1 3/4	17/32	5/16	1/16	2 1/2 lb.
D307-5 1/2 C	Same as above but with coil spring,					

NEEDLE NOSE PLIER

Supplied with coil spring.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D301-6-SCP-C	6 5/8	1 15/16	11/16	3/8	1/2	1/16	3 1/2 lb.
D203-6-SCP-C	Same as above but with side cutting knives						3 1/4 lb.

SLIM NOSE PLIER

Similar to D307-5 1/2, but jaws are polished and edges radiused—no knurl. Supplied with coil spring. Handles blue plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D327-5 1/2 C	5 13/16	1 3/4	17/32	5/16	1/16	2 1/2 lb.

LONG NOSE PLIER KNIFE AT POINT

Supplied with coil spring.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D301-6PC	6 5/8	1 15/16	11/16	3/8	5/16	1/16	4 lb.

LONG NEEDLE NOSE SIDE CUTTING PLIER

1/32 in. point

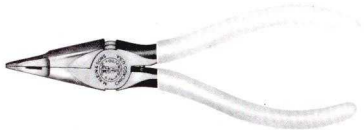
Needle nose point only 1/32 in. diameter. Supplied with coil spring. Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D221-5 1/2 C	5 13/16	1 3/4	17/32	5/16	7/16	1/32	2 1/2 lb.

For description on coil springs see page 18

LONG NOSE PLIER KNIFE AT POINT



Similar to D301-6PC, but nose has been reduced in thickness as illustrated. Supplied with coil spring. Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D317-6PC	6	1 1/4	11/16	3/8	5/16	1/16	3 1/4 lb.

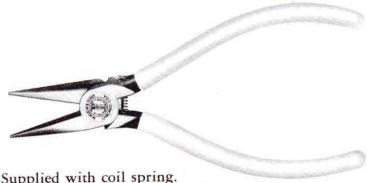
SLIM LONG NOSE PLIER

Supplied with coil spring.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D310-6C	6 5/8	1 15/16	11/16	3/8	1/16	3 3/4 lb.

CHAIN NOSE PLIER



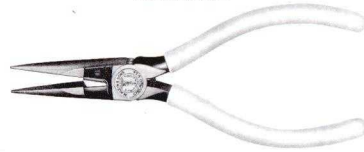
Supplied with coil spring.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D317-5C	5 1/4	1 1/8	1/2	5/16	1/16	2 1/4 lb.

LONG NOSE SHEAR CUTTING PLIER

Pat. No. 2,848,810



Replaceable blades, will cut dead soft or hard wire. Supplied with coil spring and yellow plastic dipped handles.

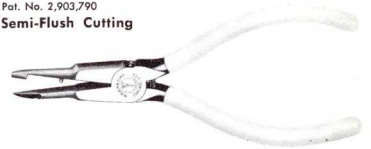
Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D208-6C	6 5/8	1 15/16	11/16	3/8	1/2	1/16	3 3/4 lb.
078-K	Replacement blade and screw.						

NEEDLE NOSE ELECTRONIC PLIER

Pat. No. 2,903,790

Semi-Flush Cutting



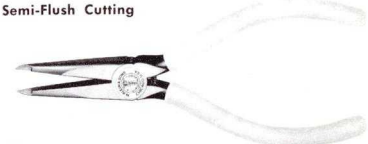
Shear cutting blade at 15° angle. Cuts flush, steel jaws hold clipped end firmly. Shear cutting principle assures smooth continuous action without snap . . . prevents shock, which may damage delicate parts. Pin keeps jaws and cutters in alignment. Nose ground down to needlepoint to permit use in confined space.
Supplied with coil spring.
Handles yellow plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	E	F	Av. Wt. Per Doz.
D261-6C	6 3/8	1 23/32	11/16	3/8	5/16	1/8	3 1/4 lb.

END CUTTING TRIMMER PLIER

Semi-Flush Cutting

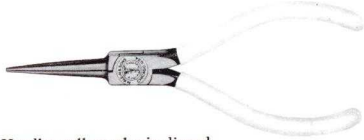


Long nose end cutting plier with cutting edges set at 45° angle. Ideal for trimming printed circuit boards. Valuable in repair of electronic systems. Top bevel of knife less than .0010 in. Supplied with coil spring. Handles green plastic dipped.

Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D211-6C	6 1/2	1 3/4	3/4	3/8	1/8	3 3/4 lb.

LONG NEEDLE NOSE PLIER



Handles yellow plastic dipped.

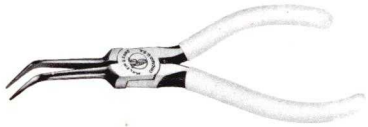
Dimensions in inches*

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D318-5 1/2	5 13/32	1 3/4	1/2	5/16	1/16	2 1/2 lb.
D318-5 1/2 C	Same as above but with coil spring,					

*For dimension drawings of Klein Pliers see page 19.

CURVED NEEDLE NOSE PLIER

No Knurl



Will reach in confined space. Inside jaws polished and edges radiused. Coil spring holds jaws open. Handles blue plastic dipped.

Dimensions in inches

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D338-5½C	5½	1¾	½	3/16	1/16	2½ lb.

LONG NEEDLE NOSE PLIER

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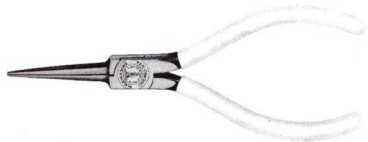


Similar to D318-5½, but jaws are polished and edges radiused. Coil spring. Handles plastic dipped.

Dimensions in inches

Cat. No.	A	B	C	D	F	Av. Wt. Per Doz.
D328-5½C	5 13/32	1¾	½	5/16	1/16	2½ lb.

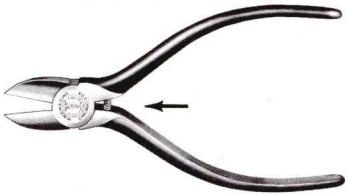
FATIGUE-REDUCING PLIER

Designed and produced in conjunction with engineers at Western Electric. Minimizes bending of wrist. Undue strain and fatigue are reduced. Coil spring holds jaws open. Handles red plastic dipped.

Dimensions in inches

Cat. No.	A	B	C	D	Av. Wt. Per Doz.
D366-6C	7½	2	11/16	3/8	6½ lb.

KLEIN PLIERS WITH COIL SPRINGS



Pliers carrying designation "C" after the number are supplied with plated coil spring to hold jaws open. Sturdy spring assures long trouble-free service. Inside of handle is free of any obstruction.

DIPPED PLASTIC HANDLES

For pliers with dipped plastic handles, indicate prefix "D" before the catalog number, as D203-6. Furnished in following colors:

Diagonal Pliers—Red
Long Nose Pliers—Yellow
End Cutting Pliers—Green
Side Cutting Pliers—Blue

"KLEIN-KOAT" TENITE HANDLES

Provide non-skid grip and greater comfort. Transparent "Tenite" plastic in bright maroon.

Cat. No.	Size	Av. Wt. Per Doz. Pr.
60	To fit 6-in. pliers	¾ lb.
70	To fit 7-in. pliers	1¼ lb.
89	To fit 8-in. or 9-in. pliers	1¼ lb.

COMFORT GRIP HANDLES

An exclusive Klein plier handle made of aerated plastic material to provide a firm but resilient cushion. Safety grip prevents slipping even when hands are wet. Red only.

Cat. No.	Size	Av. Wt. Per Doz. Pr.
55	To Fit 5-in. through 6½-in. pliers	¾ lb.

SLIP-ON HANDLES

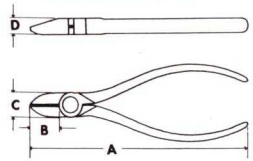
Slip-on plastic handles are available in red, yellow, green or blue. If color is not specified red will be shipped. Minimum order 12 pair of any one size.

Cat. No.	Size	Av. Wt. Per Doz. Pr.
34	To fit 4-in. - 4½-in. pliers	¾ lb.
35	To fit 5-in. - 5½-in. pliers	¾ lb.
36	To fit 6-in. - 6½-in. pliers	¾ lb.
46	36 pr. assorted sizes and colors	2¼ lb.

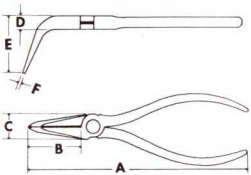
DIMENSIONS OF KLEIN PLIERS

Below are shown drawings of Klein Pliers. These will serve as a key to show the dimensions of any pliers shown on pages 6 through 18. All dimensions subject to commercial tolerances.

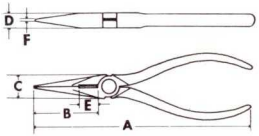
OBLIQUE CUTTING PLIER



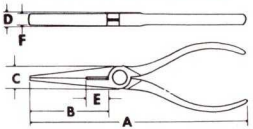
CURVED NOSE PLIER



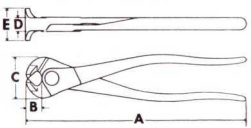
CHAIN AND LONG NOSE PLIER



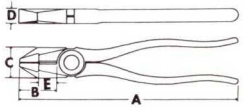
FLAT AND DUCK BILL PLIER



END CUTTING PLIER



SIDE CUTTING PLIER



SPECIAL FEATURES AVAILABLE ON KLEIN PLIERS

FINISHES

Fully Polished Finish

Klein Pliers may be furnished fully polished standard 120 grit finish. Prefix "FP" before catalog number. Example: FP 203-6. Minimum order 12 pairs.

High-Gloss Finish

Klein Pliers may be furnished with a fully polished high-gloss, buffed finish. Buffing is performed over 300 grit finish to assure a high luster, resembling buffed chrome plate finish. Prefix "HG" before catalog number. Example: HG 203-6. Minimum order 12 pairs.

Chrome-Plated Finish

Klein Pliers may be furnished with chrome plate over standard finish. This produces a Satin appearance. For High Gloss to Nickel Chrome finish, prefix HGNC before catalog number. Example: HGNC 203-6. Minimum order 12 pairs.

Hi Di-ELECTRIC PLIER HANDLES

Plier handles are yellow plastic-dipped to provide dielectric strength. Pliers listed below are available from stock with Hi Di electrical handles. Other pliers are available on order. Write for information.

HD201-8NE	HD502-10
HD213-8NE	HD502-12
HD213-9NE	HD213-9NE-TH

Dielectric data furnished on request to responsible personnel.

FLUSH CUTTING

Klein Diagonal Pliers may be furnished without top bevel on knife for flush cutting. Prefix "FC" before catalog number. Example: FC 245-5.

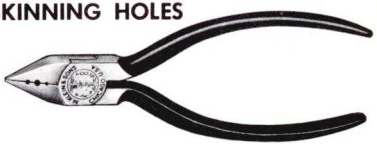
Minimum order 12 pairs

SPECIAL POINT

Long Nose Pliers are furnished with 1/32-inch point at slight extra charge. Specify "1/32″ point" when ordering. Example: 203-6C 1/32″ point.

Minimum order 12 pairs

SKINNING HOLES



In pliers having cutting knives, skinning holes may be had to order. Holes are brought to a sharp edge through countersinking, assuring clean removal of any insulation. 1, 2 or 3 holes of various sizes may be placed into each plier. Illustrated is the 209-5 with stripping holes for 19 gauge, 22 gauge and 24 gauge wire. Prices on application.

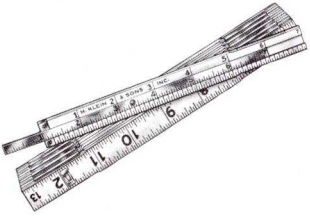
Minimum order 12 pairs

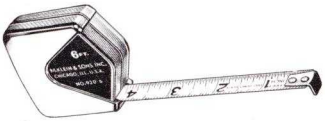
ELECTRICIANS' TOOLS

- PUMP PLIERS
- WRENCHES
- SAWS
- HAMMERS
- SCREWDRIVERS
- TAPES
- RULES
- KNIVES
- SCISSORS

In addition to the complete line of pliers and equipment for linemen and electricians, Klein's expanded line now includes wrenches, pump pliers, screwdrivers, nut drivers, saws, hammers, rules, tapes, and other tools.

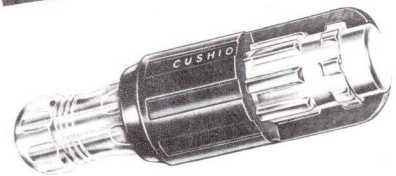
The high quality that has always been recognized as a feature of Klein pliers characterizes these other tools in the complete Klein line. They have been designed and manufactured to the highest possible standards with no compromise in quality.





KLEIN "CUSTOM" CUSHION-GRIP SCREWDRIVERS

Patent No. 2871899



This new line of Klein screwdrivers is designed for electricians and mechanics who want something better than the usual commercial screwdriver. Exceptionally strong, made of alloy tool steel carefully heat-treated. Full chrome-plated finish to prevent rust. The amber plastic handle is shockproof and nonflammable, and is firmly secured to the steel shaft. Every Klein "Custom" Cushion Grip screwdriver is fully guaranteed.

- **Hardened alloy tool steel**
- **Fully chrome-plated finish**
- **Precision cross-ground point**
- **Bolstered heavy-duty blade—winged shaft**
- **Clear amber handle firmly secured to the shaft**
- **Rubber grip resistant to oil, gas, water**
- **Hammerproof, shockproof, nonflammable**
- **50% greater torque**
- **Super comfortable cushioning action never hurts the hand**

Cross section shows slotted amber handle and interlocking ribbed sleeve of genuine Nitrile rubber.

HEAVY-DUTY SQUARE SHANK

Cat. No.	Blade	Wt. per Doz.
600-1 stubby	1¼ x ¼ in.	1½ lb.
600-4	4 x ¼ in.	3 lb.
600-6	6 x 5/16 in.	5¼ lb.
600-8	8 x ⅜ in.	7¾ lb.

HEAVY-DUTY ROUND SHANK

Cat. No.	Blade	Wt. per Doz.
602-3	3 x 3/16 in.	2 lb.
602-4	4 x ¼ in.	2½ lb.
602-6	6 x 5/16 in.	4½ lb.
602-8	8 x ⅜ in.	6¾ lb.

ELECTRICIANS AND TELEPHONE ROUND SHANK

Cat. No.	Blade	Wt. per Doz.
601-3	3 x 3/16 in.	1¾ lb.
601-4	4 x 5/16 in.	1¾ lb.
601-6	6 x 5/16 in.	2 lb.
601-8	8 x 5/16 in.	2¼ lb.
601-10	10 x 5/16 in.	2½ lb.

SUPER-HARD PHILLIPS

Cat. No.	Blade	Wt. per Doz.
603-1 #2 point stubby	1½ x ¼ in.	1½ lb.
603-3 #1 point	3 x 5/16 in.	1¾ lb.
603-4 #2 point	4 x ¼ in.	2¼ lb.
603-6 #3 point	6 x 5/16 in.	4 lb.

PLASTIC HANDLE SCREWDRIVER (WITHOUT CUSHION GRIP)

Cat. No.	Blade	Wt. per Doz.
604-3	3 x 3/16 in.	1½ lb.

ELECTRICIAN'S CABINET POINT

Cat. No.	Blade	Wt. per Doz.
605-4	4 x ¼ in.	3 lb.
605-6	6 x ¼ in.	4 lb.

SCREWHOLDING SCREWDRIVER

Designed with a spring clip at tip which holds screw firmly, permitting one-hand operation.

Cat. No.	Shank	Blade	Av. Wt. Per Doz.
606-4	⅛ in. sq.	4 in.	2¾ lb.
606-6	⅛ in. sq.	6 in.	3¼ lb.
607-4	5/32 in. sq.	4 in.	3 lb.
607-7	5/32 in. sq.	7 in.	3½ lb.
SUPER-HARD PHILLIPS			
608-3 #1 point	3/16 in. Rd.	3 in.	3 lb.
608-4 #2 point	¼ in. Rd.	4 in.	4 lb.

INSULATED SHANK SCREWDRIVER

Patent No. 2871899

Insulation is an extremely hard plastic, highly resistant to cutting, cracking or chipping. The dipped coating has excellent dielectric properties and is thin enough to permit using the screwdriver in confined places. The tip is exposed beyond the plastic ⅛ in.

Cat. No.	Blade	Wt. per Doz.
620-3	3 x 3/16 in.	2½ lb.
620-4	4 x ¼ in.	3¼ lb.
620-6	6 x 5/16 in.	5¼ lb.
620-8	8 x ⅜ in.	7¼ lb.

Narrow blade only 3/16 in. on all lengths.

Cat. No.	Blade	Wt. per Doz.
621-3	3 x 3/16 in.	2½ lb.
621-6	6 x 3/16 in.	2¾ lb.
621-8	8 x 3/16 in.	3 lb.
621-10	10 x 3/16 in.	3¼ lb.

DRIVE-A-MATIC NUT DRIVER

Fits 15 different nut and screw sizes

One tool designed to drive and loosen 15 different sizes of hex nuts, hex head screws, and socket head cap screws. Eliminates hunting for the right driver. Comfort grip makes turning easier and protects hands.

Cat. No.	Overall Length	Aver. Wt. Per Doz.
632	7″	4 ½ lb.

ROBERTSON SQUARE SCREWDRIVER

Similar to Klein Cushion Grip Screwdriver, but blade is designed to drive Robertson square screws. Tops of handles color-coded for easy identification.

Cat. No.	Size	Colors	Screws Sizes	Av. Wt. Per Doz.
660	#0	Yellow	3 and 4	1¾ lb.
661	#1	Green	5, 6, 7	1¾ lb.
662	#2	Red	8, 9, 10	2½ lb.
663	#3	Black	12 and 14	2½ lb.

CUSHION-GRIP NUT DRIVER

Patent No. 2,871,899

The finest nut driver made. Cushion grip is comfortable, never hurts the hand. Gives tremendous turning power—more work with less effort. Handle is shock-proof, hammer-proof and non-flammable.

This is the only nut driver made with shank and hex forged in one piece. Most nut drivers are welded. Socket is drilled deep to take projecting bolt.

Cat. No.	Color	Shank	Nut Size	Wt. Per Doz.
630-3/16	Black	3⅛ in.	3/16 in.	2 lb.
630-¼	Red	3⅛ in.	¼ in.	2 lb.
630-5/16	Yellow	3⅛ in.	5/16 in.	2 lb.
630-11/32	Green	3⅛ in.	11/32 in.	2 lb.
630-⅜	Blue	3¼ in.	⅜ in.	3¾ lb.
630-7/16	Brown	3½ in.	7/16 in.	4 lb.
630-½	Red	3½ in.	½ in.	4 lb.

Set of 7 Drivers Listed Above

Cat. No.	Wt. Per Set
631	2½ lb.

INSULATED NUT DRIVER

A cushion grip nut driver with insulated shank of hard yellow plastic material.

Cat. No.	Nut Size	Av. Wt. Per Doz.
640-3/16	3/16 in.	2¾ lb.
640-5/16	5/16 in.	3 lb.
640-⅜	⅜ in.	4¾ lb.
640-½	½ in.	5 lb.
640-⅝	⅝ in.	5½ lb.

TRIPLE-TAP TOOL

A handy tool designed to re-thread stripped holes, or to remove plaster from threaded holes. Has a cushion grip handle to protect hands. Available in two sizes. Packed six to a box.

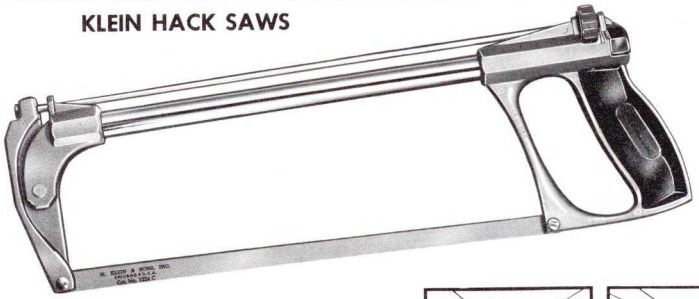
Cat. No.	Description	Approx. Wt. Doz.
623-32	To tap 6/32, 8/32, 10/32 holes	1½ lb.
623-24	To tap 6/32, 8/32, 10/24 holes	1½ lb.

SCRATCH AWL

Hard point for scratching metal, starting screw holes, etc. Cushion-grip handle.

Cat. No.	Length	Av. Wt. Per Doz.
650	7 in.	2½ lb.

KLEIN HACK SAWS



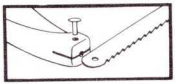
This Klein electricians' saw does many jobs no other hack saw can do. Compact, it cuts through to a flat surface. Red knob provides thumb adjustment of blade. Higher tension on blade assures longer blade life. Frame is die cast aluminum with strong comfort-grip handle. This is the only saw that provides comfortable front end grip for two-hand operation.

Storage chamber provided for six extra blades.

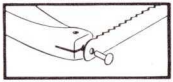
Cat. No.	Length	Length of Blade	Wt. Per Dozen
701-10	14 in.	10 in.	18 lb.
701-12	16 in.	12 in.	19 lb.

Same design as above but retaining pin is threaded, which prevents losing pin if blade is broken. Blade can only be used in vertical position.

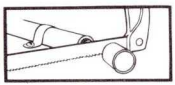
701-TH	16 in.	12 in.	19 lb.



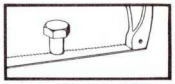
Blade held in accurately machined slots, insuring perfect alignment full length of blade.



Retaining pins hold blade for sideways cutting. Flat head of pins permits cutting flush against surface.



Cuts through to flat surface because there are no projecting wing nuts or protruding handle.



Cuts flat against surface sideways. Makes it easy to cut flush to wall or floor.

KLEIN COMPASS SAW

Improved design with oversized handle permits two-hand operation. Klein Magic Slot Blade may be changed in seconds—it is not necessary to remove thumb screw to reverse or change blades. Magic Slot design assures firm locking action while permitting fast blade change. Handle is die cast aluminum, blue oxidized finish.

Supplied without blades.

Cat. No.	Length Handle	Grip	Wt. Per. Doz.
702	5 in.	4½ in.	6 lb.

KLEIN JAB SAW

Handy little saw for many uses; compact, sturdy. Blade is held firmly in place by a steel back that fits over the blade and is inserted or removed by turning the handle. Blade may be extended to provide flexibility at the tip, if desired. Broken hack saw blades can be used. Handle is die cast aluminum, blue oxidized finish. Furnished with one 10-in. blade.

Cat. No.	Length Overall	Wt. Per Doz.
703	10½ in.	11 lb.

KLEIN HACK SAW BLADES

High-quality hack-saw blades in either carbon steel or high-speed steel.

			Packed per Box	Wt. Per Box
Carbon Steel Hack Saw Blades (Grey)				
1018C	10 in.	18T	100	4 lb.
1024C	10 in.	24T	100	4 lb.
1032C	10 in.	32T	100	4 lb.
1218C	12 in.	18T	100	5 lb.
1224C	12 in.	24T	100	5 lb.
1232C	12 in.	32T	100	5 lb.
High-Speed Steel Hack Saw Blades (Yellow)				
1018HS	10 in.	18T	100	4 lb.
1024HS	10 in.	24T	100	4 lb.
1032HS	10 in.	32T	100	4 lb.
1218HS	12 in.	18T	100	5 lb.
1224HS	12 in.	24T	100	5 lb.
1232HS	12 in.	32T	100	5 lb.

KLEIN COMPASS SAW BLADES

Highest quality carbon steel blades designed with Magic Slot for use with Klein Compass Saw.

Cat. No.	Length	Teeth	Packed per Box	Wt. Per Doz.
704	12 in.	8T	12	3 lb.
705	12 in.	10T	12	3 lb.
706	8 in.	10T	12	2¼ lb.
707	10 in.	10T	12	2¼ lb.
Metal Cutting Blade with Wavy Edge				
708	8 in.	24T	12	1¾ lb.

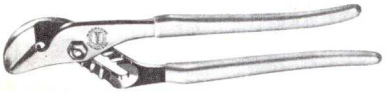
KLEIN PUMP PLIER

Jaw opening up to 1¾ in.

Jaws are positioned and locked into place by engaging tongue in proper groove. Jaws cannot slip even under heavy pressure. In 10 in. size six channels give wide range of jaw openings.

Cat. No.	Length	Max. Cap.	Av. Wt. Per Doz.
502-6	6½ in.	1 in.	4 lb.
502-10	10 in.	1¾ in.	9½ lb.
502-12	12 in.	2⅛ in.	17⅜ lb.

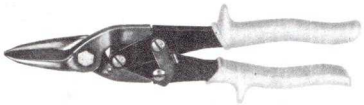
INSULATED HANDLE PUMP PLIER



Klein 10 in. and 12 in. pump pliers are available with handles, yellow dipped-plastic covered. The 16 in. plier is supplied only with handles yellow dipped-plastic covered. The symbol HD before the number signifies hidielectric handles recommended for hot line work.

Cat. No.	Length	Max. Cap.	Av. Wt. Per Doz.
D502-6	6½ in.	1 in.	4½ lb.
D502-10	10 in.	1¾ in.	10 lb.
D502-12	12 in.	2⅛ in.	17⅜ lb.
D502-16	16 in.	4¼ in.	29¾ lb.
HD502-10	10 in.	1¾ in.	10 lb.
HD502-12	12 in.	2⅛ in.	17⅞ lb.

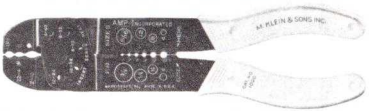
METAL-CUTTING AVIATION SNIPS



Compound action assures maximum cutting ease. Jaws are hot drop-forged molybdenum steel. Handles are formed of electric furnace steel. Safety latch keeps jaws closed when not in use. Yellow plastic handles provide maximum comfort. Available in left, right, or straight styles.

Cat. No.	Style	Length of Cut	Full Length	Wt. Each
1100 L	Left	1⅜ in.	9¾ in.	1 lb.
1101 R	Right	1⅜ in.	9¾ in.	1 lb.
1102 S	Straight	1⅜ in.	9¾ in.	1 lb.

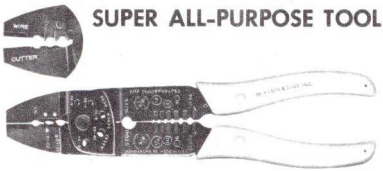
ALL PURPOSE 6-IN-ONE TOOL



Shears bolts clean, cuts wire, strips wire, measures stud sizes, gauges wire sizes, crimps terminals. Handles red plastic covered.

Cat. No.	Length	Av. Wt. Per Doz.
1000	7½ in.	5 lb.

SUPER ALL-PURPOSE TOOL

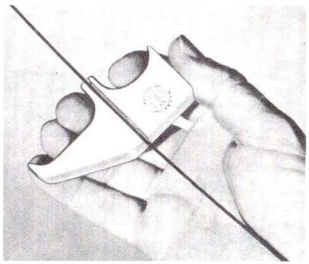


A general all-purpose tool for crimping insulated terminals and splices, cutting wire, stripping wire, cutting bolts, crimping 7 mm ignition and distributor terminals. A special feature is the terminal locater which positions the barrel to insure proper location of the crimp. Wire cutter in nose. Man-sized, red plastic handles contoured for comfort.

Cat. No.	Length	Aver. Wt. Per Doz.
1002	8½"	7 lb.

CHICAGO "FISH-TAPE" PULLER

Patent #1,628,744



Here is a simple, husky come-along for fish-tape.

Fish-tape slips sideways into slot and a ratchet wheel assures a strong, positive grip. For a new bite slide the puller forward on the tape. Simple, strong, automatic . . . grips like a vise . . . never slips. Will not injure the tape and its small size permits it to be carried in the pocket. (We do not supply fish-tape.)

Cat. No.		Av. Wt. Per Doz.
1629	For standard fish-tapes	2½ lb.

KLEIN ADJUSTABLE WRENCHES

Drop forged alloy steel for maximum strength and lighter weight. Chrome plates. Packed 6 to a box.

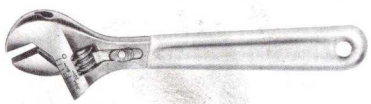
Cat. No.	Size	Capacity	Av. Wt. Per Doz.
500-4	4 in.	½ in.	2½ lb.
500-6	6 in.	¾ in.	3 lb.
500-8	8 in.	15/16 in.	6 lb.
500-10	10 in.	1 1/8 in.	9½ lb.
500-12	12 in.	1 5/16 in.	18 lb.
500-15	15 in.	1 11/16 in.	45 lb.

KLEIN ADJUSTABLE WRENCHES

Same design as wrenches listed above, but with yellow dipped plastic handles for additional comfort and better grip. Handles yellow hidielectric plastic covered.

Cat. No.	Size	Capacity	Av. Wt. Per Doz.
D 500-4	4 in.	½ in.	2½ lb.
D 500-6	6 in.	¾ in.	4 lb.
D 500-8	8 in.	15/16 in.	7½ lb.
D 500-10	10 in.	1 1/8 in.	11 lb.
D 500-12	12 in.	1 5/16 in.	20 lb.
D 500-15	15 in.	1 11/16 in.	45 lb.

ADJUSTABLE LOCKING WRENCHES



The famous Klein Adjustable Wrenches may also be had in a locking pattern which maintains the jaws at a set distance. Furnished from stock. Handles yellow hidielectric plastic covered.

Cat. No.	Size	Capacity	Av. Wt. Per Doz.
D 500-8L	8 in.	15/16 in.	7½ lb.
D 500-10L	10 in.	1 1/8 in.	11 lb.
*D 500-12L	12 in.	1½ in.	20 lb.

*D 500-12L has extra capacity suitable for fine work.

WRENCH PARTS KITS

Parts for Klein Adjustable Wrenches are supplied in a kit. Each kit contains the parts listed, packed in a clear plastic box.

Cat. No.	Wt. Each
WP-1	1 7/8 lb.

Contains Following Parts

Part	Quantity	Part	Quantity	Part	Quantity
4 in. Jaws	2	4 in. Pins & Springs	2	4 in. Knurls	2
6 in. Jaws	3	6 in. Pins & Springs	3	6 in. Knurls	3
8 in. Jaws	3	8 in. Pins & Springs	3	8 in. Knurls	3
10 in. Jaws	3	10 in. Pins & Springs	3	10 in. Knurls	3
12 in. Jaws	3	12 in. Pins & Springs	3	12 in. Knurls	3

WRENCH REPAIR PARTS

JAWS Size	KNURLS Size	PINS & SPRINGS Size
4 in.	4 in.	4 in.
6 in.	6 in.	6 in.
8 in.	8 in.	8 in.
10 in.	10 in.	10 in.
12 in.	12 in.	12 in.
15 in.	15 in.	15 in.

KLEIN LINEMEN'S WRENCH

Forged from selected bar steel heat treated. Each end has a different size opening. Hole is provided at larger end for turning in standard pole steps. This wrench is particularly suited for use on the heavier three bolt guy clamps on which clearance is limited. Generally suitable for ⅝" hardware.

Openings: Large end—1 3/32" and 29/32"
Small end—1 3/32" and ⅝"

Cat. No.	Size	Approx. Wt. Each
3146	13" for ⅝" hardware.	2 lb.

KLEIN LINEMEN'S WRENCH

Same as above but modified for ¾ inch hardware.

Openings: Large end—1 1/16" and 1 5/16"
Small end—⅝" and ⅞"

Cat. No.	Size	Av. Wt. Each
3146-A	13" for ¾" hardware	2 lb.

KLEIN LINEMEN'S WRENCH

Meets All Requirements of EEI Specifications "Bell System" Type New NEMA Hardware Specifications

Similar to wrenches shown above, but designed to conform to new NEMA Close Nut tolerance standards.

Openings: Large end—1 1/16" and 1 3/16"
Small end—1 1/16" and ⅞"

Cat. No.		Approx. Wt. Each
3146-B	13"	2 lb.

POWER RETURN TAPE RULE

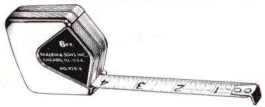
Positive locking. Smooth return. Control knob for easy operation. Belt or pocket clip on back of case. Mylar (DuPont Polyester Film) clad blade. Resists abrasion, most oils and acids. Black numerals on yellow blade for maximum visibility. Blade replaceable.

Cat. No.	Length	Width	Av. Wt. Per Doz.
922-10	10 ft.	¾ in.	7 lb.
922-12	12 ft.	¾ in.	7½ lb.

Replacement Blades for above

Cat. No.	Length	Width	Av. Wt. Per Doz.
923-10	10 ft.	¾ in.	3 lb.
923-12	12 ft.	¾ in.	3 lb.

PUSH-PULL TAPE RULE



Mylar (DuPont Polyester Film) blade takes at least three times more abrasive wear. Double scale marking after first foot. Hook compensates for inside or outside measuring.

Cat. No.	Length	Width	Av. Wt. Per Doz.
920-6	6 ft.	½ in.	4½ lb.
920-8	8 ft.	½ in.	5 lb.

Replacement Blades for above

Cat. No.	Length	Width	Av. Wt. Per Doz.
921-6	6 ft.	½ in.	2 lb.
921-8	8 ft.	½ in.	2 lb.

CASED STEEL TAPES

Made of 50- and 100-ft. steel, epoxy coated, to give long wear. Welded steel case is vinyl coated and fitted with nickel-plated mountings. End fastener snaps out to grip corners for one-man use.

Cat. No.	Length	Width	Wt. Each
940-50	50 ft.	⅜ in.	1 lb.
940-100	100 ft.	⅜ in.	1¾ lb.

KLEIN HEAVY-DUTY EXTENSION RULE

Black numbers on yellow background offers maximum visibility and long wear. King-size, non-stretching joints permanently lubricated. Sticks graduated on edges in inches and 16ths. Brass slide for extended 6-inch measuring. Tips and protector strike plates are brass plated. Rule outside read.

Cat. No.	Finish	Length	Av. Wt. Per Doz.
905-6	Yellow	6 ft.	4¾ lb.

KLEIN WOOD RULES

Special yellow finish lasts at least ten times longer. Resists abrasion. Non-stretching, lubricated brass-plated steel joints. Sticks graduated on all edges in inches and sixteenths. Available in standard read and inside read.

Cat. No.	Length	Av. Wt. Per Doz.
901-6 standard read	6 ft.	4½ lb.
900-6 inside read	6 ft.	4½ lb.

ALUMINUM TORPEDO LEVEL

Magnetic

Handy pocket level. Three vials—plumb, level and 45° mitre. Magnets in base assure greater convenience when hanging fixtures, etc.

Cat. No.	Vial	Length	Size	Av. Wt. Per Doz.
930-9	3	9 in.	1¼ in. x ¾ in.	4 lb.

ALUMINUM LINE LEVEL

Handy level only 3 in. long with hooks to suspend on line.

Cat. No.	Length	Av. Wt. Per Doz.
931	3″	¾ lb.

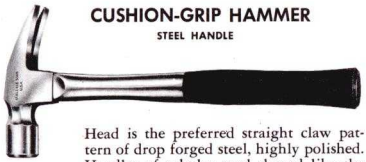
KLEIN HAMMERS

ELECTRICIANS' HAMMER

Here is the ideal hammer specifically designed for electricians' use. The extra long neck and narrow striking face make this hammer ideal for reaching into such confined spaces as outlet boxes.
Head is straight claw pattern of drop forged steel, highly polished. Available with hickory handle, triple wedged into tapered eye, or tubular steel handle. Both have cushion-grip of Neoprene permanently bonded.
Striking face is only 1-in. in diameter.

Cat. No.	Wt. of Head	Overall Length	Wt. Per Doz.
805-18 Hickory Handle	18 oz.	14 in.	24 lb.
806-18 Tubular Steel Handle	18 oz.	14 in.	24 lb.

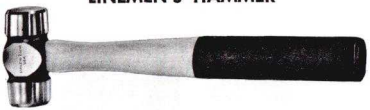
CUSHION-GRIP HAMMER
STEEL HANDLE



Head is the preferred straight claw pattern of drop forged steel, highly polished. Handles of tubular steel shaped like the traditional hickory handle. Has the resilience of wood, the strength of steel. Feels and swings like hickory. Cushion grip, no slip Neoprene permanently bonded, eliminating sting often associated with steel handles. Properly balanced for comfort. In the event of misuse causing damage to handle, conventional wood handle can be substituted.

Cat. No.	Wt. of Head	Overall Length	Wt. Per Doz.
802-16	16 oz.	13¼ in.	19½ lb.
802-20	20 oz.	14 in.	24 lb.

LINEMEN'S HAMMER



Perfectly balanced hammer for heavy work. Designed and constructed for comfort and to prevent tiring the hand. Both faces identical with 1¾-in. round crown driving surface and ample bevel to reduce possibility of chipping. The 3¾-in. head is designed for use in small or confined space. Handle of hickory, compression fitted for permanent tightness. Neoprene cushion grip.

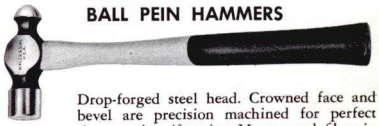
Cat. No.	Wt. of Head	Overall Length	Wt. Per Doz.
804-36	36 oz.	15½ in.	33 lb.

CUSHION-GRIP HAMMER
HICKORY HANDLE

Designed for heavy duty. Drop-forged alloy steel. Fully polished with octagon neck and straight claw. Head, 1¼-in. diameter. Maximum face bevel and crown minimize possibility of chipping. Finest grade second growth white hickory handle. Handle is triple wedged into tapered eye . . . permanently tight. Permanently bonded, non-slip grip of top-quality Neoprene.

Cat. No.	Wt. of Head	Overall Length	Wt. Per Doz.
801-16	16 oz.	13¼ in.	18 lb.
801-20	20 oz.	14 in.	24 lb.

BALL PEIN HAMMERS



Drop-forged steel head. Crowned face and bevel are precision machined for perfect shape and uniformity. More wood fiber in the eye assures tightness of head and reduces the possibility of the head loosening or handle breaking. Handles slightly flattened to assure a firm grip. Handle is preshrunk and compressed under high pressure. Steel wedge driven in at the top expands handle, keeping head permanently tight.

Cat. No.	Wt. of Head	Overall Length	Wt. Per Doz.
803-12	12 oz.	12¾ in.	13½ lb.

CUSHION-GRIP WOOD REPLACEMENT HANDLES

Wood replacement handles for Klein hammers.

Cat. No.	Wt. Per Dozen
814 (handle only for 804-36 hammer)	5 lb.
816 (handle only for 801-16 hammer)	3 lb.
820 (handle only for 801-20 hammer and 805-18 hammer)	5 lb.

"XELA" LINEMAN'S KNIFE

A sturdily constructed knife of highest grade, carefully tempered cutlery steel. Blade is 3" long. Blade automatically locks in open position. Handle is made of special plastic that won't crack or chip. Fitted with wrought shackle riveted in handle. Single blade

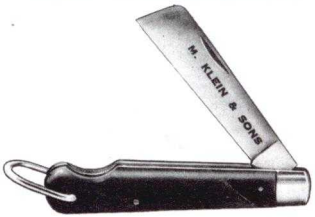
Cat. No.	Size	Average Weight Per Doz.
1550-4	4" (closed length)	4 lb.

"XELA" KNIFE & SCREWDRIVER

Same as 1550-4 except that a screwdriver blade has been added. Screwdriver locks automatically when opened. Both blades are 3" long.

Cat. No.	Size	Approx. Wt. Doz.
1550-7	4" (closed length)	3 lb.

"XELA" SKINNING KNIFE



A high-quality knife made of finest cutlery steel carefully tempered. Specially designed for skinning wire. Plastic handle has ring for attaching to snap. Fitted with wrought shackle riveted in handle.

Cat. No.	Size	Average Weight Per Doz.
1550-5	3½" (closed length)	1 lb.

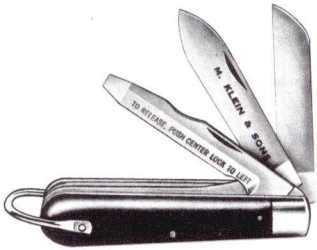
"XELA" ELECTRICIANS' KNIFE

A sturdy knife specially designed for electricians' use. Made of high-grade cutlery steel carefully tempered. Handle is made of special plastic that won't crack or chip.

When the screwdriver is opened, it locks automatically, preventing the blade folding when in use. A slight pressure of the thumb releases the lock. Fitted with wrought shackle riveted in handle. Nominal length of blade 2½"; length of screwdriver 3".

Cat. No.	Size	Average Weight Per Doz.
1550-2	Two-blade knife and screwdriver, 3¾" (closed length)	3 lb.

"XELA" THREE BLADE KNIFE



Similar to 1550-2 but with a spearpoint knife blade, a sheepsfoot blade and a screwdriver blade. Made of high-grade cutlery steel carefully tempered. Handle is of special plastic that won't crack or chip.

Screwdriver blade locks automatically when opened. Fitted with wrought shackle riveted in handle. Nominal length of long blade 2½"—short blade 2"—screwdriver 3".

Cat. No.	Size and Description	Average Weight Per Doz.
1550-6	Three-blade knife and screwdriver 3¾" (closed length)	3½ lb.

PLASTIC HANDLE SKINNING KNIFE

Made of high-grade steel carefully tempered. Handle is of red molded on flame-resistant plastic, providing excellent insulation and comfortable grip. Back of blade is ground flat for scraping. Handy ring for fastening to snap is imbedded in plastic handle. Molded finger guard prevents accidents.

Cat. No.	Length Less Ring	Blade	Average Weight Per Doz.
1570-3	8″	3″	4 ¼ lb.

1570-3LR as above less ring in handle.

RUBBER HANDLE SKINNING KNIFE

An ideal skinning knife for linemen. Made of high quality steel carefully tempered. The molded handle is of half-hard rubber providing insulation and a comfortable grip. Back of blade is ground flat for scraping. Hole in handle is through solid rubber.

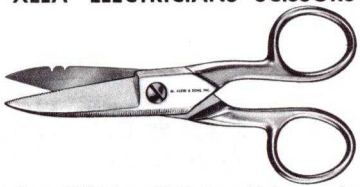
Cat. No.	Length Overall	Blade	Average Weight Per Doz.
1560-3	8″	3″	4 ¼ lb.

"XELA" ELECTRICIANS' SCISSORS

A scissor specially designed for the electrician and mechanic. Will stand continued hard service. Made of high-grade steel carefully tempered. Has screw hinge allowing adjustment. Nickel plated finish.

Cat. No.	Size	Average Weight Per Doz.
2100-5	5″	2 lb.

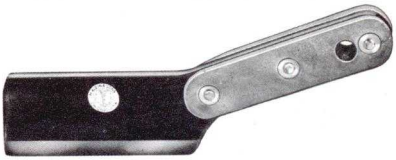
"XELA" ELECTRICIANS' SCISSORS



Similar to 2100-5 but with the lower blade serrated to prevent slippage of wire when cutting. Upper blade has a stripping notch.

Cat. No.	Size	Av. Wt Per Doz.
2100-7	5 in.	2 lb.

CABLE SHEATH SPLITTING KNIFE
(HEAVY-DUTY BELL SYSTEM TYPE)



A heavy-duty knife for splitting cable sheaths. Blade is finest cutlery steel shaped to a keen edge. Strong leather handle is securely riveted. Tempered blue finish.

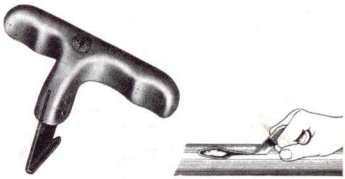
Cat. No.	Length Overall	Blade	Average Weight Per Doz.
1515-1	8 ¾″	4 ½″	13 lb.

LEATHER CHIPPING KNIFE GUARD

Made of fine grade leather with snap. Designed to protect Klein splitting knife 1515-1.

Cat. No.	Av. Wt. Per Doz.
5574-L	4 lb.

KLEIN SLITTING TOOL
For Control Cable

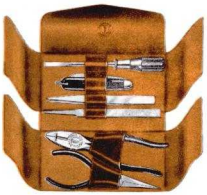


Designed to slit tough insulation from a few inches to as many feet as desired, swiftly and simply. Will not damage conductors inside the weatherproof sheath.

Handle cast aluminum, light in weight, shaped to fit the hand. Knife of tempered tool steel may be sharpened and is easily replaced.

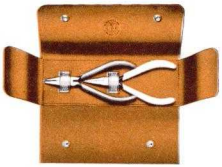
Cat. No.	Size	Av. Wt Per Doz.
1558	4 ½ in. x 2 ½ in.	3 lb.
058-K	Replacement knife and roll pin.	

POCKET TOOL KITS



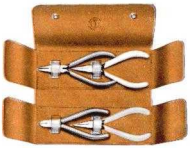
Genuine brown leather folding case containing the following tools:
No. 201-6NE Side Cutting Plier
No. 301-6 Long Nose Plier
No. 1550-2 Electrician's Knife
5-in. Electrician's Tweezers
4-in. File and Handle
Screwdriver 3-in. insulated blade

Cat. No.	Size Closed	Weight Each
1305-2	6½ x 3½ x 1½"	1¼ lb.



Compact kit holding the two most important pliers for repair and maintenance. Case is finest leather, two snaps. Color brown. Contains two pliers.
1 D321-4½ Long Nose Plier
1 D257-4 Oblique Cutting Plier

Cat. No.	Size Closed	Weight Each
1305-5	7 x 2¾ x ½"	⅜ lb.



Handy kit holding four midget pliers. Fits the pocket. Case of finest leather with two snaps.
1 No. D257-4 Oblique Cutting Plier
1 No. D224-4½ End Cutting Plier
1 No. D321-4½ Long Nose Plier
1 No. D323-4½ Duck Bill Plier

Cat. No.	Size Closed	Weight Each
1305-4	7 x 2¾ x 1"	¾ lb.

Handy kit for electricians and servicemen. Top-quality leatherette roll with strap and buckle. Contains following tools:

1 No. 201-6 NE Side Cutting Plier
1 No. 301-6 Long Nose Plier
1 No. 202-5 Oblique Cutting Plier
1 No. 1550-2 Electrician's Knife
1 4-in. File and Handle
1 5-in. Electrician's Tweezers
1 Insulated Screw Driver (3-in. blade)

Cat. No.	Weight Each
1305-33A	1½ lb.

COMBINATION WIRE AND SLEEVE CLAMPS

Has five round holes and one oval hole. For bare wire. Handles copper wire Nos. 2, 4, 6, 8, 10, 12, B. & S. Iron wire Nos. 4, 6, 8, 10, 12, 14, B. W. G.

Cat. No.	Size	Av. Wt. Per Doz.
102-30	10¾ in.	16¾ lb.

Has five round holes for bare wire, one oval hole for guy strand. Reverse side has five chambers for double tube sleeves.

Handles: Copper wire Nos. 4, 6, 8, 10, 12, B. & S.
Iron wire Nos. 6, 8, 10, 12, 14, B. W. G.
Oval hole .437 x .624
Copper sleeves Nos. 6, 8, 10, 12, 14, 17, B. & S.
Iron sleeves Nos. 8, 10, 12, 14, 16, 19, B.W.G.

Cat. No.	Size	Av. Wt. Per Doz.
132-15	11¼ in.	18 lb.

Has five round holes for bare wire, one oval hole for guy strand. Reverse side has five chambers for double tube sleeves.

Handles: Copper wire Nos. 4, 6, 8, 10, 12, B. & S.
Iron wire Nos. 6, 8, 10, 12, 14, B. W. G.
Oval hole .437 x .624
Copper sleeves Nos. 4, 6, 8, 10, 12, B. & S.
Iron sleeves Nos. 6, 8, 10, 12, 14, B. W. G.

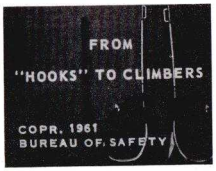
Cat. No.	Size	Av. Wt. Per Doz.
132-46	11¼ in.	17¾ lb.

KLEIN CLIMBERS

Klein climbers are drop forged from selected electric furnace steel and are individually tempered and tested. The gaff is drop forged from electric furnace alloy tool steel and is set into the leg iron at the proper angle. Carefully tempered for maximum safety.

For maximum life, leg irons are fully polished in critical sections before aluminum finish is applied.

Klein Climbers are available in adjustable pattern (pages 32 & 33) or in fixed-length pattern (page 33). In the adjustable patterns a tubular sleeve telescopes over the leg iron and is secured to the climber shank with two steel pins and locked with special keys. The adjustable feature assures the correct size for every lineman without the need of stocking many sizes. Klein "Pole Master" Climbers give better support to the arch of the foot and are made in matched pairs —one for the right leg and one for the left.



FROM "HOOKS" TO CLIMBERS

35 Millimeter Sound Slide Training Slide Film

Depicts the steps in the manufacture of climbers. Recommended procedures and common misconceptions. Running time—22 minutes. Produced by the Bureau of Safety. Available for showing from M. Klein & Sons without charge. May be purchased from Bureau of Safety, 20 North Wacker Drive, Chicago, Illinois 60606.

REPLACEABLE GAFF ADJUSTABLE CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 in. measured from instep to top of slide.

1958-AR
with riveted ankle loop

1959-AR
with split ring at ankle

C1959-AR same as 1959-AR but complete with straps and pads.

Matched pairs right and left, wide stirrup gives full support. Offset shank brings gaff in proper line with leg bone assuring greater security and comfort. Leg irons are drop forged from select electric furnace steel and replaceable gaffs are drop forged from electric furnace alloy tool steel. Both gaffs and leg irons are individually heat treated and tested. We recommend that leg irons be replaced after three pairs of gaffs have been used.

With Riveted Ankle Loop

Cat. No.		Approx. Wt. Pair
1958-AR		4½ lb.
*C1958-AR	With straps and pads.	6 lb.
1958-AR-L	Adjustable 17"-21"	4¾ lb.
*C1958-AR-L	With straps and pads.	6½ lb.

*Furnished with No. 5301-9 calf strap, No. 5301-10 ankle strap and No. 8210 climber pads.

With Split Ring at Ankle

Cat. No.		Approx. Wt. Pair
1959-AR		4½ lb.
*C1959-AR	With straps and pads.	6 lb.
1959-AR-L	Adjustable 17"-21"	4¾ lb.
*C1959-AR-L	With straps and pads.	6½ lb.

*Furnished with No. 5301-9 calf strap, No. 5301-26 ankle strap and No. 8210 climber pads.

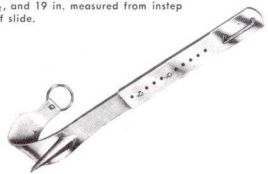
REPLACEABLE GAFFS

Gaffs supplied complete with lock screw and wrench.

Cat. No.	Approx. Wt. Pair
59	½ lb.

"POLE-MASTER" CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 in. measured from instep to top of slide.



Matched pairs right and left. Wide stirrup gives better support. Offset shank brings gaff in proper line with leg bone assuring greater security and comfort. Riveted top loop, circular split ring at ankle. Gaff 1 $^{13}/_{16}$" measured on underside. Aluminum finish. Every climber individually tested. Straps and pads shown on following pages.

Cat. No.		Approx. Wt. Pair
1945-A		4½ lb.
*C1945-A	Complete with straps and pads	6 lb.
1945-AL	Adjustable 17" to 21"	4⅝ lb.
*C1945-AL	With straps and pads	6⅛ lb.

*Furnished with No. 5301-9 calf straps, 5301-26 ankle straps and 8210 climber pads.

"POLE-MASTER" CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 in measured from instep to top of slide.

Same as 1945 but with riveted loop for ankle strap. Straps and pads shown on following pages.

Cat. No.		Approx. Wt. Pair
1957-A		4½ lb.
*C1957-A	Complete with straps and pads	6 lb.
1957-AL	Adjustable 17" to 21"	4⅝ lb.
*C1957-AL	With straps and pads	6⅛ lb.

*Furnished with No. 5301-9 calf straps, 5301-10 ankle straps and 8210 climber pads.

FIXED GAFF CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, 19 in. measured from instep to top of slide.

Accepted as standard by utilities for many years. Gaff $1^{13}/_{16}$" in. measured on underside. Riveted strap loops. Aluminum finish. Every climber individually tested. Straps and pads shown on following page.

Cat. No.		Approx. Wt. Pair
1901-M-A		4 ⅝ lb.
*C1901-M-A	Complete with straps and pads	6 ¼ lb.
1901-M-AL	Adjustable 17-21 in.	4 ¾ lb.
*C1901-M-AL	Complete with straps and pads	6 ⅜ lb.

*Furnished with No. 5301-9 calf straps, 5301-10 ankle straps and 8210 climber pads.

FIXED GAFF CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, and 19 in. measured from instep to top of slide.

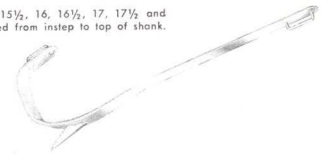
Same as 1901-M-A but with circular split ring for ankle strap. Straps and pads shown on following page.

Cat. No.		Aprox. Wt. Pair
1956-A		4 ½ lb.
*C1956-A	Complete with straps and pads	6 lb.
1956-AL	Adjustable 17-21 in.	4 ⅝ lb.
*C1956-AL	Complete with straps and pads	6 ⅛ lb.

*Furnished with No. 5301-9 calf straps, 5301-26 ankle straps and 8210 climber pads.

FIXED LENGTH CLIMBERS

Sizes: 15, 15½, 16, 16½, 17, 17½ and in. measured from instep to top of shank.



Standard pattern in fixed length climbers. Special sizes may be had to order. Riveted strap loops. Aluminum finish. Every climber individually tested.

Cat. No.	Approx. Wt. Pair
1901-M	3 ⅝ lb.

Straps and pads shown on following page.

TREE CLIMBERS

Adjustable to 15, 15½, 16, 16½, 17, 17½, 18, 18½, 19 in. measured from instep to top of slide.

An adjustable pattern climber with extra long gaff designed to offer maximum safety in climbing trees. Gaff 3½" long measured on the underside.

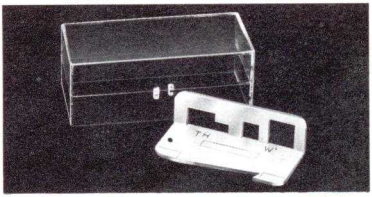
Straps and pads shown on following page.

Cat. No.		Approx. Wt. Pair
1907-A		5 lb.
*C1907-A	Complete with straps and pads	6 ⅝ lb.
1907-AL	Adjustable 17"-21"	5 ⅛ lb.
*C1907-AL	Complete with straps and pads	6 ¾ lb.

*Furnished with No. 5301-9 calf straps, 5301-10 ankle straps and 8210 climber pads.

In ordering always specify length of shank. Measure from instep to the extreme end of leg iron which should come 1 in. below the knee joint for comfort. Position of gaff hole makes it impractical to interchange regular gaffs and tree climber gaffs.

KLEIN GAFF GAUGE



Assures properly sharpened gaffs obviating the hazards due to incorrectly sharpened gaffs. Comes in hinged plastic box with instructions.

Cat. No.	Approx Wt. Each
KG-1	1 ½ oz.

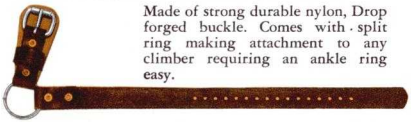
NYLON CLIMBER STRAPS

Cat. No.		Approx. Wt. Pair
5301-21	One pair (calf straps) 1 ¼ in. x 22 in.	⅝ lb.
5301-18	One pair (calf straps) 1 in. x 22 in.	½ lb.
5301-22	One pair (ankle straps) 1 ¼ in. x 26 in.	⅝ lb.
5301-19	One pair (ankle straps) 1 in. x 26 in.	½ lb.

LEATHER CLIMBER STRAPS

Cat. No.		Approx. Wt. Pair
5301-4	One pair (calf straps) 1 ¼ in. x 22 in.	½ lb.
5301-9	One pair (calf straps) 1 in. x 22 in.	⅜ lb.
5301-14	One pair (ankle straps) 1 ¼ in. x 26 in.	½ lb.
5301-10	One pair (ankle straps) 1 in. x 26 in.	½ lb.

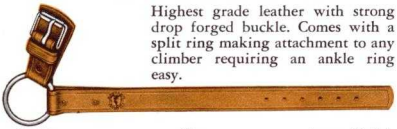
NYLON ANKLE STRAPS



Made of strong durable nylon, Drop forged buckle. Comes with split ring making attachment to any climber requiring an ankle ring easy.

Cat. No.	Size	Approx. Wt. Pair
5301-23	One Pair 1 ¼" x 26" with ring	¾ lb.
5301-20	One Pair 1" x 26" with ring	⅝ lb.

LEATHER ANKLE STRAPS



Highest grade leather with strong drop forged buckle. Comes with a split ring making attachment to any climber requiring an ankle ring easy.

Cat. No.	Size	Approx. Wt. Pair
5301-16	One Pair 1 ¼" x 26" with ring	¾ lb.
5301-26	One Pair 1" x 26" with ring	⅝ lb.

CLIMBER GAFF GUARDS

1959-G

1945-G

Made of top grade harness leather. Riveted construction Stainless steel spring clip.

Cat. No.	Approx. Wt. Pair
1945-G	⅛ lb.

May be used on Klein 1959 only. Made of polyvinyl chloride molded in one piece. Unique design makes it impossible for gaff to cut through vinyl. Color is safety yellow.

Cat. No.	Approx. Wt. Pair
1959-G	⅛ lb.

PADDED CLIMBER PADS

Front made of selected harness leather, side (next to leg) soft latigo leather. Padded with rubberized hair to assure extra comfort. 4" wide at top and 9" long.

Cat. No.	Approx. Wt. Pair
8211	¾ lb.

ANGLE CLIMBER PADS

Right and left pattern of high-grade latigo leather padded with rubberized hair. Size 8 in. x 8 in.

Cat. No.	Approx. Wt. Pair
8210	¾ lb.

"BELL SYSTEM" PADS

Leather pads, felt lined. 6¼" long x 3¼" wide at top. Tapering to 2¾" at bottom.

Cat. No.	Approx. Wt. Pair
8205	½ lb.

LONG PADS

Made of selected harness leather with riveted loops. Felt lined. Size 9" x 3½".

Cat. No.	Approx. Wt. Pair
8209	⅝ lb.

SQUARE PADS

Made of selected harness leather. 4" x 4" square. Felt lined.

Cat. No.	Approx. Wt. Pair
8201	⅜ lb.

CLIMBER GAFF GUARD

1968-G

Gaff guard attached to ankle strap. Slips over gaff and when climber is in use is secured to climber out of the way.

Cat. No.	Approx. Wt. Pair
1968-G	¼ lb.

KLEIN-BUHRKE SAFETY EQUIPMENT

Including:

- Linemen's Belts
- Steel Workers' Belts
- Safety Harness
- Safety Straps
- Electricians' Pouches
- Tool Bags
- Non-Metallic Buckets
- Aerial Basket Straps
- Lanyards

Klein-Buhrke Safety Equipment is the most complete line in the industry and offers Public Utilities, Industry, and Electrical Contractors everything they need in this area from a single source.

The leather, nylon, and canvas from which Klein-Buhrke equipment is made is of highest quality, tested to stand up under more than average use.

Most Klein-Buhrke Belts can be modified to meet all requirements of the EEI specifications at no extra charge. Mark "To meet EEI Specifications" on your order.

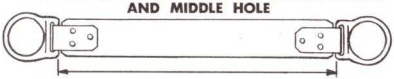
DIRECTIONS TO ASSURE PROPER FIT OF BELTS

The degree of comfort which a lineman obtains from a body belt depends on the location of the "D" rings. In general linemen desire to have the "D" rings located approximately 1 inch ahead of the hip bone. To obtain the correct size belt measure from hip bone to hip bone across the back and add 2 inches. The measuring belt shown below will assist the lineman in determining the correct size belt. This permits a positive measurement from 18" to 30" between "D"s. When belt has been fitted the largest number shown would be the "D" to "D" dimensions.

Standard punching of billet is 8 holes on 1" centers to provide for proper fit in relation to "D" ring measurements. Consideration has been given to variables in circumference of different type belts—exposed rivets versus padded belts, etc. Belts may be made with longer billets at no extra charge to increase the maximum length adjustment.

ORDER BY "D" RING SIZE ONLY

DISTANCE BETWEEN CENTER OF BUCKLE ROLLER AND MIDDLE HOLE



DISTANCE BETWEEN HEELS OF "D" RINGS

BODY BELT CHART

CUSHION BELTS AS 5299, 5282-N, 5266-N, 5268-N

"D" to "D"	18	19	20	21	22	23	24	25	26	27	28	29	30
Buckle to Middle Hole	34	36	38	40	42	44	46	48	50	52	54	56	58
Former Klein Size	34		36		38 40		42		44		46		48

EXPOSED RIVETS AS 5203-N, 5262, 5204

"D" to "D"	18	19	20	21	22	23	24	25	26	27	28	29	30
Waist Size	30	32	34	36	38	40	42	44	46	48	50	52	54
Buckle to Middle Hole	32	34	36	38	40	42	44	46	48	50	52	54	56
Former Klein Size	34		36		38 40		42		44		46		48

Even sizes are most popular and are shown in black. Available from stock.

Odd sizes shown in red are made to order and may be had at no additional charge. Delivery in approximately two weeks.

SIZING BELT

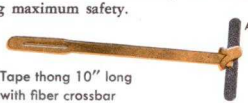
This belt has been designed to provide a positive measurement from 18" to 30" between "D"s.

Cat. No.	Approx. Wt. Each
5270	1⅞ lb.

BELT ACCESSORIES

Handline safety clip leather thong with clip. Overall length 10½". A tension of between 8 and 12 lb. releases the handline automatically should it snag, thus assuring maximum safety.

Cat. No.		Av. Wt. Per Doz.
5133		½ lb.
5130	Tape thong 10" long with fiber crossbar	½ lb.



Knife snap with strap and screw type rivets for belt.

Cat. No.	Approx. Wt. Each
5131	⅛ lb.

"D" ring with strap and screw type rivets for belt.

Cat. No.	Approx. Wt. Each
5132	½ oz.

WRENCH HOLDER

Metal lag-wrench holder riveted to leather pad for attaching with screw type rivets to belt.

Cat. No.	Approx. Wt. Each
5134	⅜ oz.

NEAT'S-FOOT OIL

For the convenience of users and to assure the best grade, we can supply Neat's-foot oil with full directions for use.

Cat. No.	Approx. Wt. Each
N.O. 1 Pint Can	1⅛ lb.

NYLON LEATHER TOOL BELT

The strength of nylon and the comfort of leather. The "D" saddle, waist strap, pocket tabs and 1¼" tool loops are made of neoprene impregnated nylon fabric. The body pad is made of chrome elk tanned leather, padded with sponge rubber. Accessories included are: tape holder, glove bag ring, knife snap, four suspension "D" rings and No. 5133 hand line carrier. Has circle "D" rings. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5266-N	5"	4¾ lb.

LIGHTWEIGHT NYLON

Bell System type tool belt consisting of neoprene impregnated nylon saddle and 1¾" six ply nylon body strap. Cushion is chrome tanned leather. Tool loops are harness leather. Accessories included are: tape holder, lag wrench holder and four suspension "D" rings. Has circle "D" rings. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5268-N	4½"	4⅛ lb.

FULL FLOATING TOOL BELT

A full floating trace of nylon 1¾" wide attaches to the circle "D" rings. Trace allows approximately four inches of free movement. A leather apron securely attached to the cushion separates the "D" strap from the tool loops which are made of 1½" harness leather, double riveted. The cushion is lined with chrome elk tanned leather, padded with sponge rubber. Accessories included are: tape holder, glove bag ring, knife snap, four suspension "D" rings and two pocket tabs. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5249	5"	5⅝ lb.

SEMI-FLOATING TOOL BELT

Made of first quality harness leather. Cushion is padded with sponge rubber and lined with chrome tanned elk leather. Waist strap is 2" wide. Tool loops are 1½" wide double riveted. Has circle "D" rings. Accessories included are: tape holder, glove bag ring, knife snap, four suspension "D" rings, and two pocket tabs. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5228	5"	4¾ lb.

LEATHER TOOL BELT

Made of finest quality harness leather. Waist strap is 1½" wide formed into tool loops by riveting through the full thickness of the belt. Tool loop strap passes through stirrup of circle "D" rings which are attached by a metal clip and riveted through the full thickness of the cushion. Accessory included is: wire wrench holder.

Cat. No.	Width	Approx. Wt. Each
5204	3½"	2⅞ lb.
5204-L		3 lb.

Same as above but with elk tanned leather liner lock stitched cushion, eliminating any exposed rivets in cushion.

LEATHER TOOL BELT

Same as 5204 but with the following accessories included: tape holder, glove bag ring, knife snap and plier pocket.

Cat. No.	Width	Approx. Wt. Each
5204-DE	3½"	2⅞ lb.
5204-DEL		3 lb.

Same as above but with elk tanned leather liner lock stitched to cushion, eliminating any exposed rivets in cushion.

"D" to "D" Ring Must Be Specified—See Page 36

LEATHER TOOL BELT

Made of finest quality harness leather. Waist strap is 1½" wide formed into tool loops by riveting through the full thickness of the belt. Tool loop strap passes through stirrup of circle "D" rings which are attached by a metal clip and riveted through the full thickness of the cushion. Accessory included: wire wrench holder.

Cat. No.	Width	Approx. Wt. Each
5202	2¼"	2⅞ lb.

FULL FLOATING TOOL BELT

Possesses the strength of nylon and the comfort of leather. The "D" saddle, waist strap, pocket tabs and 1¼" tool loops are made of neoprene impregnated nylon fabric. The body pad is made of chrome elk tanned leather, padded with sponge rubber. Has circle "D" rings. Accessories included are: tape holder, glove bag ring, knife snap, and four suspension "D" rings. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5282-N	5"	6⅜ lb.

PADDED NYLON-LEATHER TOOL BELT

Strength of nylon and comfort of leather have been combined in this semi-floating tool belt to assure maximum comfort. The "D" saddle, waist strap pocket tabs and 1¼" tool loops are made of neoprene impregnated nylon fabric. The body pad is made of chrome elk tanned leather. Has circle "D" rings. Accessories included are: tape holder, glove bag ring, knife snap and four suspension "D" rings. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5299	5"	4⅝ lb.
5299-N	Same as above but "D" saddle made of neoprene impregnated nylon cushioned with chrome elk tanned leather.	4 lb.

LIGHTWEIGHT LEATHER BELT

A lightweight tool belt of finest harness leather with cushion of chrome elk tanned leather. Has 2" wide waist strap stitched to the cushion. Harness leather tool loops 1½" wide have double riveting. Accessories included are: tape holder, knife snap, and two pocket tabs. Has circle "D" rings. No exposed rivets on body side of belt.

Cat. No.	Width	Approx. Wt. Each
5262	5"	3⅞ lb.

ALL NYLON TOOL BELT

A lightweight belt of neoprene impregnated nylon fabric. The body strap is of 1¾" nylon. One inch tool loops are formed by riveting to the cushion. Circle "D" rings are attached by a metal clip, riveted through the full thickness of the belt.

Cat. No.	Width	Approx. Wt. Each
5203-N	4"	2 lb.

BELT SUSPENDERS

Made of lightweight harness leather. Fully adjustable front and back. Each strap is equipped with snap. Rings are also available. See No. 5132.

Cat. No.	Approx. Wt. Each
5213	1⅜ lb.

WAIST BELT SUPPORTER

Supporter, sometimes called a gut strap has four straps, each equipped with a snap and a buckle for easy adjustment. Rings are also available if needed. See No. 5132.

Cat. No.	Size	Approx. Wt. Each
5208	36" to 46"	1⅝ lb.

"D" to "D" Ring Must Be Specified—See Page 36

LEATHER SAFETY STRAPS

Straps are cut from finest quality harness leather or pliable, latigo leather. Back or center stock only. All rivets solid copper hand set with burrs. Snaps and buckles solid steel drop forgings tested to 1500 lb., galvanized finish.

Harness Leather

Cat. No.	Size and Description	Approx. Wt. Each
5250	1 ¾ in. x 5 ft. 8 in. Standard Snaps.	3 lb.
KL-5250	1 ¾ in. x 5 ft. 8 in. "Klein-Lok" Snaps.	3 lb.

Harness Leather

Cat. No.	Size and Description	Approx. Wt. Each
5251	1 ¾ in. x 5 ft. 8 in. Standard Snaps. Leather wear pad at buckle.	3 lb.
KL-5251	1 ¾ in. x 5 ft. 8 in. "Klein-Lok" Snaps. Leather wear pad at buckle.	3 lb.

Harness Leather

Cat. No.	Size and Description	Approx. Wt. Each
5253	2 in. x 5 ft. 8 in. Standard Snaps.	3 ¼ lb.
KL-5253	2 in. x 5 ft. 8 in. "Klein-Lok" Snaps.	3 ¼ lb.

Double thick latigo leather sewn with nylon thread.

Cat. No.	Size and Description	Approx. Wt. Each
5259	1 ¾ in. x 5 ft. 8 in. Standard Snaps	3 ⅛ lb.
KL-5259	1 ¾ in. x 5 ft. 8 in. "Klein-Lok" Snaps	3 ⅛ lb.

Harness Leather

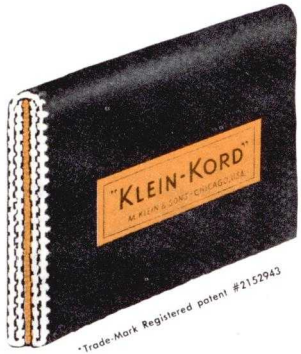
Similar in design to 5253 with forked tongue buckle

Cat. No.	Size and Description	Approx. Wt. Each
5257-S	2 in. x 5 ft. 1 ½ in. Standard Snaps.	3 lb.
5257-L	2 in. x 5 ft. 10 in. Standard Snaps.	3 lb.

"KLEIN-LOK" SNAPS

"KLEIN-LOK" Snaps are recommended for greater safety. To engage or release snap it is necessary to depress both latches at the same time. This can be done with one hand. Tested to 1500 lb. Snaps are supplied on Klein Safety Straps only and are not sold separately.

"KLEIN-KORD" NYLON SAFETY STRAPS



Mathias Klein & Sons, Inc. originated the first fabric safety strap in 1934 and has pioneered every development in the improvement of the fabric safety strap ever since.

Klein introduced the use of nylon in safety straps some years ago and with the many improvements that have been made in this synthetic fiber "Klein-Kord" Safety Straps are recognized by linemen and utilities as possessing all the desirable characteristics required by safety straps. Some of the advantages of "Klein-Kord" Safety Straps are:

WEAR. "Klein-Kord" Nylon Safety Straps will give longer life because of their superior construction. The fabric is firmly woven, providing a smooth, easy-sliding surface. It has the famous red center of nylon originally developed by Klein which indicates when the strap should be removed from service.

CONDUCTIVITY. Because "Klein-Kord" nylon is made of filament nylon it will not conduct electricity. Dielectric strength is well above the standards set by E.E.I. specifications.

STRETCH. In "KLEIN-KORD" nylon safety straps stretch has almost been eliminated, even when the strap is used over long periods of time. Under test these straps show ¼ in. stretch under a load of 250 lbs. No permanent stretch at any load.

PLY ADHESION. "KLEIN-KORD" nylon safety straps are made of multiple plies of strong, finely woven predipped filament nylon frictionized in neoprene and vulcanized.

FLEXIBILITY. Unlike many fabric straps, "KLEIN-KORD" nylon safety straps are extremely flexible assuring maximum comfort in use.

STRENGTH. When tested in use, "KLEIN-KORD" safety straps are capable of a test load far in excess of any working load they will ever be called on to support in service. Lightest in weight, these straps will outwear straps of any other safety strap material on the market.

ABRASION. Abrasion tests are performed on a sample selected at random to assure uniform quality. For more complete information write for Bulletin 566.

"KLEIN-KORD" NYLON EXTENSION STRAP

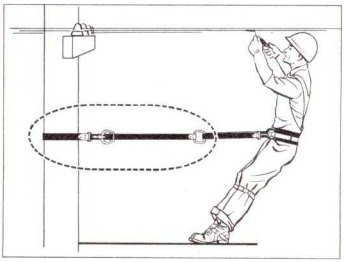
Used in connection with safety straps where extra length is necessary when working on large diameter poles. Has circle "D" ring.

Cat. No.	Size and Description	Approx. Wt. Each
5236	1 ¾" x 15" Standard snap	1 ½ lb.
KL-5236	1 ¾" x 15" "Klein-Lok" snap	1 ⅝ lb.

NYLON POLE BALCONY STRAP

Made of woven nylon which provides additional strength needed as a safety factor to meet impact loads in free falls. Gives additional length when working from diving boards or platforms. Fitted with two circle "D" rings, one fixed, the other adjustable to fit pole diameter.

Cat. No.	Size and Description	Approx. Wt. Each
5238	1 ¾" x 7' Standard snaps	2 ¾ lb.
KL-5238	1 ¾" x 7' "Klein-Lok" snaps	2 ⅜ lb.



"KLEIN-KORD" NYLON SAFETY STRAP

Meets All Requirements of EEI Specifications

Made of high tenacity continuous filament nylon fabric, thoroughly impregnated with neoprene to provide the desired flexibility with maximum strength. "KLEIN-KORD" nylon safety straps have the highest dielectric characteristics and abrasion resistance of any material availble. Equipped with single tongue buckle.

Standard length 5'8". Can also be furnished from stock in following lengths: 6', 6'6" 7', 8'. Longer lengths to order.

Cat. No.	Size and Description	Approx. Wt. Each
5295	1 ¾" x 5'8" Standard Snaps	3 lb.
KL-5295	1 ¾" x 5'8" "Klein-Lok" snaps	3 lb.
KL-5296	Same as 5295 but fixed end has standard snap and double end has "Klein-Lok" snaps.	
5297	Same as 5295 but equipped with a friction buckle.	
KL-5297	Same as KL-5295 but equipped with a friction buckle.	
KL-5298	Same as KL-5296 but equipped with a friction buckle.	

"KLEIN-KORD" NYLON FIXED LENGTH SAFETY STRAP

Made of "KLEIN-KORD" as described above but length is fixed. Standard length 4'8". Other lengths can be furnished to order.

Cat. No.	Size and Description	Approx. Wt. Each
5234	1 ¾" x 4'8" Standard snaps	2 ½ lb.
KL-5234	1 ¾" x 4'8" "Klein-Lok" snaps	2 ½ lb.

WOVEN NYLON SAFETY STRAP

Neoprene impregnated nylon web with red center. Specially designed to provide maximum strength and flexibility. Equipped with single tongue buckle.

Standard length 5'8". Can also be furnished from stock in following lengths: 6', 6'6" 7', 8'. Longer lengths to order.

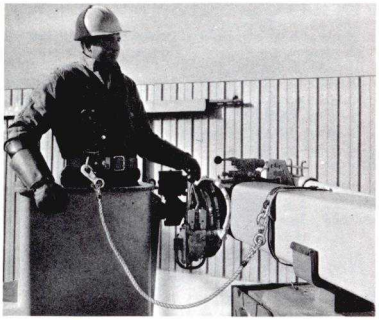
Cat. No.	Size and Description	Approx. Wt. Each
5290	1 ¾" x 7' Standard Snaps	2 ¾ lb.
KL-5290	1 ¾" x 7' "Klein-Lok" snaps	2 ¾ lb.
KL-5291	Same as 5290 but fixed end has standard snap and double end has "Klein-Lok" snaps.	
5292	Same as 5290 but equipped with a friction buckle.	
KL-5292	Same as KL-5290 but equipped with a friction buckle.	
KL-5293	Same as KL-5291 but equipped with a friction buckle.	

COTTON FABRIC SAFETY STRAP

The original "Klein-Kord" material proved through many years of service. Standard lengths 5'8". Can also be furnished from stock in following lengths 6', 6'6", 7', 8'.

Cat. No.		Approx. Wt. Each
5233	1 ¾ in. x 5 ft. 8 in. Standard Snaps	3 ⅛ lb.
KL-5233	1 ¾ in. x 5 ft. 8 in. "Klein-Lok" Snaps	3 ⅛ lb.

AERIAL BASKET STRAP ASSEMBLIES



The development of aerial basket equipment has brought the need for specially designed safety straps and assemblies for aerial basket work. Here are two assemblies developed by Klein-Buhrke for this purpose. Other specially assemblies can be made to your specifications.

Cat. No.	Description	Approx. Wt. Set
5220	Assembly consists of boom strap 5217, lanyard 5489-P-½ and waist belt 5444-LB. These are shown below.	4 ½ lb.
5221	Assembly consists of boom strap 5217, lanyard 5489-P-½ and waist belt 5216. These are shown below.	4 ⅛ lb.

AERIAL BASKET TOOL BUCKET

A bucket specially designed for attaching to aerial baskets. Made of heavy duty No. 6 canvas. Has 15 pockets on the inside providing a convenient place for tools. Plastic hooks hold the bucket in position either inside or outside the basket.

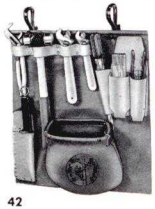
Cat. No.	Length	Width	Depth	Approx. Wt. Each
5144	14″	8″	10″	2⅛ lb.

HOOK FOR TOOL BUCKET

ABS hook designed to hang buckets on the edge of aerial baskets. Also provides a hanging hook for line hose bags, tool buckets, and hand lines. Made of styrene based plastic which withstands climatic temperature changes more readily than PVC plastics.

Cat. No.	Approx. Wt. Each
5144-H	⅛ lb.

AERIAL BASKET TOOL CARRIER



Made of heavy naugahyde, equipped with tool loops, tool holster, knife sheath and small parts bag. Designed to hang inside aerial basket to make tools readily available. Stiffening rod on top holds carrier straight.

Cat. No.	Width	Length	Approx. Wt. Each
5169	19″	21″	3 lb.

AERIAL BASKET BOOM STRAP

Made of woven nylon 7000 lb. tensile strength. Flexible, will conform to various shaped booms. Adjustable buckle permits snug take up. Circle "D" ring is adjustable and pad holding "D" ring in position is made of neoprene impregnated nylon which prevents slippage on boom strap.

Cat. No.	Length	Width	Approx. Wt. Each
5217	54″	1¾″	1¼ lb.

AERIAL BASKET LANYARD

Made of ½″ polypropylene with No. 468 snap on each end. Standard length 5′ other lengths available.

Cat. No.	Length	Diam.	Approx. Wt. Each
5489-P-½	5′	½″	1 lb.

AERIAL BASKET WAIST BELT

Made of neoprene impregnated nylon. Has free running circle "D" ring across the back. Cushion is 4″ wide tapered on the sides. Waist belt is 1¾″ wide, made of 6 ply "Klein-Kord."

Cat. No.	Approx. Wt. Each
5216	2 lb.

LIGHTWEIGHT WAIST BELT

A lightweight flexible belt made of 1¾″ woven nylon webbing. Circle "D" ring has leather liner around the bar which prevents wear of webbing. Equipped with forked tongue buckle and wrap around leather billet.

Cat. No.	Width	Approx. Wt. Each
5444-LB	1¾″	2 lb.

BELT PAD

Belt pad is designed for use with No. 5444 belt but may also be used with 5446 and 5447 belts. Recommended for maximum comfort. Made of 4" cotton webbing mildew treated.

Cat. No.	Approx. Wt. Each
5445	2 lb.

FLEXIBLE BELT 2"D"s

Made of woven nylon webbing, equipped with two "D" rings. Section of webbing runs from "D" to "D" then folds over and is sewn to the main waist belt. Leather liner around bar of "D" rings prevents excessive wear. Has friction buckle.

Cat. No.	Approx. Wt. Each
5446	1 3/8 lb.
5446-LB	1 3/8 lb.

Same as above but has forked tongue buckle and wrap around leather billet.

FABRIC SAFETY BELT

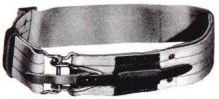
Our most popular belt. Made of 3" mildew-treated cotton webbing stitched to a 1¾" strap of woven nylon web. Has two forged circle "D" rings spaced 22" apart. Equipped with friction buckle.

Cat. No.	Approx. Wt. Each
5447*	1 ½ lb.
5447-LB	2 lb.

Same as above but has forked tongue buckle and wrap around leather billet.

*California approval No. 2616

QUICK RELEASE BELT



Emergency escape belt made of 3" webbing, mildew-treated. Equipped with a quick release buckle. Furnished with rope loop to which a lanyard may be spliced.

Cat. No.	Approx. Wt. Each
5462	2 5/8 lb.
5462-R	2 5/8 lb.

Same as above but supplied with 12′ of ½" nylon rope spliced into rope loop.

5463	1 7/8 lb.

Same as 5462 but equipped with single "D" ring on the left side.

5464	2 ½ lb.

Same as 6452 but has two "D" rings.

INDUSTRIAL BELT

Made of finest quality harness leather. Adjustable waist size 36" to 44". Width at back is 3" tapered to 2" at the buckle hole. 3" "D" ring is set in the center of the back for attaching life line. Buckle has forked tongue.

Cat. No.	Approx. Wt. Each
5412	1 5/8 lb.

LEATHER BELT

Made of finest quality harness leather 2" wide. Adjustable waist size 36" to 44". Equipped with three "D" rings. Outer rings spaced 24" apart. Has leather wrench loop. Main belt passes through "D" rings which are held in place by latigo leather straps riveted to the belt. 2" buckle has forked tongue.

Cat. No.	Approx. Wt. Each
5414	2 5/8 lb.
5414-R	2 5/8 lb.

Same as above but equipped with a rope loop to which is attached 12′ of ½" nylon rope.

"D" RING BELT ADJUSTABLE

Woven of nylon web 1¾" wide. "D" ring is inserted behind waist webbing and is held in place by leather slide that permits adjustment to any position. Once set it won't slip. Has friction buckle.

Cat. No.	Approx. Wt. Each
5475*	1 lb.
5475-LB	1 1/8 lb.

Same as above but has forked tongue buckle and wrap around leather billet.

*California approval No. 2616

LIGHT FLEXIBLE BELT

A lightweight flexible belt made of 1¾" woven nylon webbing. Circle "D" ring has leather liner around the bar which prevents excessive wear of webbing.

Cat. No.	Approx. Wt. Each
5444	1 lb.
5444-N	2 lb.

Same as above but made of neoprene impregnated nylon fabric. Belt has forked tongue buckle.

5444-LB	2 lb.

Same as 5444 but belt has forked tongue buckle and wrap around leather billet.

WRENCH HOLDER

Leather wrench holder with loop for sliding on belts.

Cat. No.	Approx. Wt. Ea.
5459	4 lb.

SNAP LOOP

Snap and leather loop for construction workers.

Cat. No.	Approx. Wt. Each
5458	¼ lb.

WEB HARNESS

Ideal for use in quarries, tanks or other places where it may be necessary to lift a man out quickly. Nylon strap is 1¾" wide equipped with three circle "D" rings.

Cat. No.	Approx. Wt. Each
5438	2⅝ lb.

LEATHER HARNESS

Made of first quality harness leather. Adjustable waist size 36" to 44". Chest strap 1¾" wide. Rear supporting strap has circle "D" ring permanently attached to a 25' length of ¾" manila rope. Shoulder straps are 1" wide and are adjustable.

Cat. No.	Approx. Wt. Each
5409	3½ lb.
5409-N	3½ lb.

Same as above but made of neoprene impregnated nylon.

ELECTRODE BAG

Made of No. 4 canvas. Bottom formed from hard leather. Diameter 2½", Front 12", Back 15½". Web loop 5" for sliding over belt.

Cat. No.	Approx. Wt. Each
5471	⅜ lb.

WEB HARNESS

Made of 1¾" nylon web having a minimum tensile strength of 6700 lbs. Shoulder straps are one continuous piece. Adjustment is made by raising and lowering circle "D" ring through the loop at the back. Equipped with friction buckle.

Cat. No.	Approx. Wt. Each
5434	1¼ lb.
5434-LB	1⅝ lb.

Same as above but has forked tongue buckle and wrap-around leather billet.

BOATSWAIN CHAIR

Made of genuine steer hide harness leather, drop forged hardware and hard maple seat measuring 20" x 8". Ideal for painting, repairing towers, or on other high positions where men must be suspended for long periods of time.

Cat. No.	Approx. Wt. Each
5427-L	8¼ lb.
5427-N	8¼ lb.

Same as above but made from 1¾" nylon having minimum tensile strength of 6,700 lbs.

DRIFT PIN HOLDER

Made of harness leather, slotted for attaching to belt.

Cat. No.	Approx. Wt. Each
5417	⅜ lb.

NYLON WAIST BELT

Combination chrome elk tanned leather and woven nylon. Special weave of webbing permits awling for insertion of grommets. Equipped with rope loop which may be used for a hammer loop where safety line is not required. Waist size adjustable 36" to 44". Other sizes to order.

Cat. No.	Approx. Wt. Each
5440	2⅛ lb
5440-R	2⅛ lb

Same as 5440 but with 12' of ½" nylon rope spliced into rope loop. Free end has No. 468 snap. Splices are whipped with flexible fabric tape.

5441	1⅝ lb.

Same as 5440 but circle "D" ring is attached to center of back.

5442	1⅜ lb.

Same as 5440 but has two circle "D" rings one attached to each side.

TREE TRIMMER'S BELT

Made of neoprene impregnated nylon so designed that the weight of the wearer is distributed along the leg straps as well as the body strap. The safety line is attached to a free-running circle "D" ring across the front. Provided with carrying snap. Adjustable for sizes 36" to 46". Life line not supplied.

Cat. No.	Approx. Wt. Each
5410	2¼ lb.

BOLT BAG

Made of No. 8 canvas. Oval top approximately 5"x 9". Bag 10" deep. Tapered wrench loop on each side.

Cat. No.	Approx. Wt. Each
5416	½ lb.

RESCUE AND WORK HARNESS

A parachute type harness designed to keep workmen in upright position when V sling is held taut. Made of 1¾" nylon webbing, minimum tensile 6,700 lbs. Harness adjustable for any type figure.

Cat. No.		Approx. Wt. Each
5423		7 lb.
5423-NS	Same as above but equipped with non-sparking hardware and/or synthetic rubber impregnated for resistance to acid fumes, caustics.	7 lb.

TOWER HARNESS

Made of 1¾" woven nylon web, minimum tensile strength 6700 lbs. Harness designed with adjustable shoulder straps, waist belt with forked tongue buckle. Shock load is divided between two areas of the body reducing the impact forces of a free fall.

Cat. No.	Approx. Wt. Each
5452-H	2⅝ lb.

Complete assembly consists of 5452-H Harness, 18′ of ½" nylon rope adjustable lanyard with No. 468-L locking snap at each end and 7/32" steel aircraft cable 21" eye to eye for attaching around tower member. Provides maximum safety for workmen on ladders, transmission towers, etc.

Cat. No.	Approx. Wt. Each
5452	2⅝ lb.

SPREADER HOOK

For use with tree trimmer harness. Rings approximately 8" apart allowing greater freedom of leg movement.

Cat. No.	Approx. Wt. Each
456	1 lb.

WOVEN NYLON MULTIPURPOSE SAFETY HARNESS

Made of 1¾" woven nylon webbing, minimum tensile strength 6700 lbs. stitched to 3" wide mildew-treated cotton pads on belt and seat. This multi-purpose belt has many uses. It may be used as a waist belt, as a positioning belt or lifting and lowering belt. Friction buckle.

Cat. No.		Approx. Wt. Each
5483		2⅜ lb.
5483-LB	Same as above but equipped with forked tongue buckle and wrap-around leather billet.	2¾ lb.
5483-S	Same as 5483 but equipped with No. 456 spreader snap.	2¾ lb.
5483-S-LB	Same as 5483-LB but equipped with No. 456 spreader snap.	2⅞ lb.

SAFETY WRIST HARNESS

Designed to raise or lower men by their wrist when working in narrow openings such as in pipe or tanks. Harness is made of chrome acid resisting leather. "V" Sling is ½" nylon rope.

Buckles, rings and snaps are non-sparking.

Cat. No.	Approx. Wt. Each
5408	2½ lb.

SAFETY LANYARDS

Cat. No. 5485—Attached to "D" Ring on Belt. Free end Whipped.

Cat. No. 5486—Attached to "D" Ring on Belt. No. 468 Snap on Free End.

Cat. No. 5487—Attached to "D" Ring on Belt. No. 457 Snap on Free End.

Cat. No. 5488—No. 468 Snap one end. Other end Whipped.

Cat. No. 5489—No. 468 Snap on each end.

Cat. No. 5490—No. 468 Snap on one end. No. 457 Snap on other end.

Cat. No. 5491—V. Suspension Rope. No. 468 Snap on each leg.

Cat. No. 5492—Adjustable Sling with No. 468 Snap on each end. And with Rope Adjuster.

Cat. No.	Rope	Approx. Wt. Each
5485-D-½″	Dacron	¾ lb.
5485-M-½″	Manila	⅝ lb.
5485-M-⅝″	Manila	1 lb.
5485-M-¾″	Manila	1 lb.
5485-N-½″	Nylon	⅝ lb.
5485-P-½″	Polypropylene	¾ lb.
5486-C-7/32″	Aircraft Cable	1⅝ lb.
5486-D-½″	Dacron	¾ lb.
5486-M-½″	Manila	1⅜ lb.
5486-M-⅝″	Manila	1½ lb.
5486-M-¾″	Manila	1⅝ lb.
5486-N-½″	Nylon	1 lb.
5486-P-½″	Polypropylene	1 lb.
5487-C-7/32″	Aircraft Cable	1½ lb.
5487-D-½″	Dacron	1⅝ lb.
5487-M-½″	Manila	1⅝ lb.
5487-M-⅝″	Manila	1¾ lb.
5487-M-¾″	Manila	1⅞ lb.
5487-N-½″	Nylon	1⅞ lb.
5487-P-½″	Polypropylene	1⅞ lb.
5488-D-½″	Dacron	¾ lb.
5488-M-½″	Manila	1¼ lb.
5488-M-⅝″	Manila	1½ lb.
5488-M-¾″	Manila	1⅝ lb.
5488-N-½″	Nylon	1½ lb.
5488-P-½″	Polypropylene	1⅝ lb.
5489-C-7/32″	Aircraft Cable	1⅞ lb.
5489-D-½″	Dacron	1¾ lb.
5489-M-½″	Manila	1⅛ lb.
5489-M-⅝″	Manila	1⅛ lb.
5489-M-¾″	Manila	1¼ lb.
5489-N-½″	Nylon	1⅛ lb.
5489-P-½″	Polypropylene	1 lb.
5490-C-7/32″	Aircraft Cable	2 lb.
5490-D-½″	Dacron	2¼ lb.
5490-M-½″	Manila	2⅜ lb.
5490-M-⅝″	Manila	2½ lb.
5490-M-¾″	Manila	2⅝ lb.
5490-N-½″	Nylon	2½ lb.
5490-P-½″	Polypropylene	2 lb.
5491-D-½″	Dacron	2⅝ lb.
5491-M-½″	Manila	2½ lb.
5491-M-⅝″	Manila	3¼ lb.
5491-M-¾″	Manila	3⅝ lb.
5491-N-½″	Nylon	2¼ lb.
5491-P-½″	Polypropylene	2½ lb.
5492-D-½″	Dacron	1⅞ lb.
5492-M-½″	Manila	1½ lb.
5492-M-⅝″	Manila	2¼ lb.
5492-M-¾″	Manila	2⅜ lb.
5492-N-½″	Nylon	1⅞ lb.
5492-P-½″	Polypropylene	1⅞ lb.

The above lanyards all come in 5′ lengths, other lengths available on special order.

ROPE INFORMATION

Generally two distinct elongation properties are of interest to the consumer! **PERMANENT ELONGATION** and **WORKING ELASTICITY.**
The first time a rope is loaded, it generally undergoes some permanent change in length. This change is called **PERMANENT ELONGATION.**
Upon repeated application of the same load, most ropes elongate and recover elasticity with no further permanent elongation. This property is called **WORKING ELASTICITY.**
The following table gives typical values for various ropes subjected to normal working loads.

ROPE	DIAMETER	AVERAGE BREAKING STRENGTH (pounds)	Permanent Elongation Load = % Of Breaking Strength-Standard Lay		Working Elasticity Strength-Standard Lay	
			20%	30%	20%	30%
Manila	½″	2650	1.5	2.0	7.0	8.0
	⅝″	4400	1.5	2.0	7.0	8.0
	¾″	5400	1.5	2.0	7.0	8.0
Nylon (Filament)	½″	7100	4.0	7.0	22.0	24.0
Nylon (Spun)	½″	5000	4.0	7.0	22.0	24.0
Polypropylene	½″	5300	2.5	3.0	12.0	13.0
Dacron	½″	5500	0.5	0.5	9.0	9.0
Aircraft Cable	7/32″	5600	Preformed		Practically None	

WHEN ORDERING BE SURE TO GIVE OVERALL LENGTH DESIRED

SAFETY SNAP HOOK

Made of drop forged carbon steel. Designed to snap over ladder rungs or re-bar reinforcements which are used in construction. Maximum throat opening 1½″. Inside diameter of eye 5/16″. Overall length 6¼″.

Cat. No.	Max. Safe Load	Approx. Wt. Each
457	1,500 lbs.	½ lb.
457-5	Same as above but heat treated to attain a minimum of 5,000 lb. tensile.	½ lb.

HAND LINE SNAP HOOKS

Rope snap hook made of drop forged steel. Maximum throat opening 1 1/16″. Inside diameter of eye 1⅛″. Overall 5¼″.

Cat. No.	Max. Safe Load	Approx. Wt. Each
468	1,500 lbs.	½ lb.
468-5	Same as above but heat treated to attain a minimum of 5,000 lbs. tensile	½ lb.
468-L	Same as 468 but equipped with a positive locking device.	½ lb.
468-NS	Same design as 468 but forged of brass alloy steel to provide non-sparking characteristics. Approximately 1,200 lb. tensile.	½ lb.

ELECTRICIANS POCKETS

Cat. No. 5126

High-quality leather pouch specially designed for electricians. Has large gusseted utility pocket, two plier pockets, two screwdriver pockets and a knife snap.

Cat. No.	Over All-Size	Approx. Wt. Each
5126	6 ½ in. x 8 ½ in.	⅝ lb.

A high-quality leather pouch specially designed for electricians. Has extra large gusseted utility pocket, three plier pockets, two screwdriver pockets and knife snap.

Cat. No.	Over All-Size	Approx. Wt. Each
5127	7 in. x 10 in.	⅞ lb.

Cat. No. 5127

Cat. No. 5164

A new pocket of high-quality leather providing room for an extraordinary amount of tools. Four large gusseted utility pockets. Two plier pockets. Two pockets for screwdrivers. In addition a knife snap is provided.

Cat. No.	Overall Size	Approx. Wt. Each
5164	8 ¾ in. x 10 in.	1 ⅛ lb.

A utility pocket of finest chrome leather—soft and pliable. Two large utility gusseted pockets. Two screwdriver pockets. Two tool loops. Three plier pockets and one chain tape thong.

Cat. No.	Overall Size	Approx. Wt. Each
5166	7 in. x 10 in.	⅞ lb.

Cat. No. 5166

Newly developed, this quality leather pouch is curved to fit the hip providing greater comfort. Large utility pocket gives ample room for electricians tools. A smaller utility pocket, two plier pockets, and two screwdriver pockets are provided. Pouch has chain tape thong and knife snap. Slots permit fastening to belt.

Cat. No.	Size	Approx. Wt. Each
5168	8 ½" x 11"	1 lb.

Cat No. 5168

Cat. No. 5190

Drawing indicates arrangement of pockets

Here is a telephone installer's pocket, made of highest grade harness leather, riveted throughout to assure long life. Ten separate compartments provide places for a wide variety of pliers, screwdrivers and other tools. Equipped with ring and tape thong. Slots permit fastening to belt.

Cat. No.	Size	Approx. Wt. Each
5190	8 ¾ in. x 6 in.	⅞ lb.

Electricians Plastic Pouch.

* Molded in 1-piece polyvinyl chloride.
* Strong, tougher than the finest leather.
* Unaffected by extremes in temperature, remains pliable even in coldest weather.
* Three plier pockets, two screw driver pockets, and a utility pocket for wrenches, skinning knives, other equipment.
* One-piece construction, no stitches or rivets.
* Drainage holes in all pockets prevent water from collecting.

Cat. No.	Size	Approx. Wt. Each
5141 With Knife Snap	8" x 10"	1 ⅜ lb.
5141-LS Without Snap	8" x 10"	1 ¼ lb.

Cat. No. 5141

Cat. No. 5100

Cat. No. 5175

A high quality strap leather pocket designed to hold Klein electrician's scissors No. 2100-5. Loop provided at back of pocket for attaching to waist belt.

Cat. No.	Size	Approx. Wt. Each
5100	6 in.	⅛ lb.

Small strap leather pouch that can be used on belt or carried in pocket. Will hold a variety of small tools. Flap may be snapped back to form belt loop.

Cat. No.	Size	Approx Wt. Each
5175	4½" x 7"	⅜ lb.

Cat. No. 5101

Cat. No. 5138

Scissors pocket. Made of strap leather riveted with clip on back for attaching to belt. Also has slots through which belt may be inserted.

Cat. No.	Size	Approx. Wt. Each
5101	8 in. x 3½ in.	⅛ lb.

A top quality leather pouch designed to hold most standard voltage testers. Strap with snap prevents meter jolting out of pocket.

Cat. No.	Size	Approx. Wt. Each
5138	3 in. x 8 in.	⅜ lb.

Cat. No. 5111

Made of harness leather. Ideal for carrying pliers or other tools in the hip pocket. Prevents wear and cutting of clothes or possible injury.

Cat. No.	Size	Approx. Wt. Each
5111	5 in. x 7 in.	⅜ lb.

Cat. No. 5107

Cat. No. 5112

Made of high-quality harness leather. Will carry 6-, 7-, 8- or 9-in. plier. Has slots through which belt may be inserted or it can be riveted on to tab on body belt. Nose protrudes through opening at bottom.

Cat. No.	Size	Approx. Wt. Each
5107	3½ in. x 8½ in.	¼ lb.

Similar to 5107 except plier does not protrude. Bottom is open to prevent collection of dirt or water. A loop at the back permits sliding in belt or pocket can be riveted on.

Cat. No.	Size	Approx. Wt. Each
5112	3½ in. x 9 in.	⅜ lb.

Cat. No. 5129

Cat. No. 5149

A pocket of high-quality strap leather designed to hold a two cell flashlight.

Slotted and punched for easy attachment to belt.

Cat. No.	Size	Approx. Wt. Each
5129	3 in. x 8 in.	¼ lb.

A strap leather tool pouch having large rear pockets for assorted tools and two front pockets for diagonal and long nose pliers. Has loop for hanging on belt.

Cat. No.	Size	Approx. Wt. Each
5149	6" x 7"	⅜ lb.

Cat. No. 5118-PRS

Cat. No. 5118-R

Made of high-quality harness leather. An all-purpose pocket for pliers, folding rule and screwdriver. Openings at bottom. Slotted and punched for easy attachment to belt.

Cat. No.	Size	Approx. Wt. Each
5118-PRS	6½ in. x 8¾ in.	¾ lb.

Made of heavy harness leather. Slotted and punched for easy attachment to belt. One pocket for side cutting plier and a separate pocket for 6-ft. rule.

Cat. No.	Size	Approx. Wt. Each
5118-R	4¾ in. x 8 in.	⅝ lb.

Cat. No. 5118-C

Cat. No. 5118-S

Made of top quality harness leather. Four pockets to hold plier, rule, screwdriver and wrench or adjustable plier. Has two way knife snap. Slotted and punched for easy attachment to belt. No exposed rivets in back.

Cat. No.	Size	Approx. Wt. Each
5118-C	6½ in. x 8 in.	⅛ lb.
5118-E	Same as above but rivets are exposed.	

Made of heavy harness leather, slotted and punched for easy attachment to belt. Open at bottom. Pocket for side cutting plier and one for screwdriver.

Cat. No.	Size	Approx. Wt. Each
5118-S	4 in. x 8 in.	½ lb.

Cat. No. 5163

Cat. No. 5125

A harness leather pocket for holding skinning knives. It can be carried in the hip pocket or riveted to a belt.

Cat. No.	Size	Approx. Wt. Each
5163	3 in. x 9 in.	⅜ lb.

Made of heavy harness leather with four pockets. An extra long 6½-in. pocket is provided for screwdriver. Has riveted straps for attaching to belt.

Cat. No.	Over-All Size	Approx. Wt. Each
5125	7 in. x 9 in.	⅝ lb.

Cat. No. 5148

Cat. No. 5145

A strap leather pouch for such tools as pliers, screwdrivers, etc. Individual pockets for each tool. Has loop for hanging on belt.

Cat. No.	Size	Approx. Wt. Each
5148	8" x 9"	½ lb.

Strap leather utility pouch. 1" reinforced gusset. Has 4" outside pockets.

Cat. No.	Size	Approx. Wt. Each
5145	4" x 5"	½ lb.

A sturdy white canvas bag with strong zipper. Room for pliers, wrenches, etc.

Cat. No.	Size	Approx. Wt. Each
5139	6" x 12"	⅛ lb.

Cat. No. 5142

Made of #8 heavy brown canvas with cycolac ring in top. Snaps on belt loops for easy attachment. Ventilating eyelet in bottom.

Cat. No.	Size	Top Opening	Approx. Wt. Each
5142	9 in. x 10 in.	8 in. x 3 in.	⅝ lb.

Cat. No. 5140-K

A large roomy pouch or "bug" bag. Made of strap leather with gussets of soft, pliable leather. Attaches to belt with latigo leather thongs. Pouch expands to 6½"x6½" x 3¼".

Cat. No.	Size	Approx. Wt. Each
5140-K	7" x 9"	¾ lb.

Cat. No. 5146

All purpose leather bag, light weight. Ideal for carrying loose tools and small parts. Large loops for attaching to body belt.

Cat. No.	Size	Approx. Wt. Each
5146	9" x 8" x 3"	⅜ lb.

Cat. No. 5147

A 12 oz. olive drab fabric bag with four divided compartments to hold small parts. Drawstring provides easy closure.

Cat. No.	Diam.	Depth	Approx. Wt. Each
5147	11"	3"	⅜ lb.

FABRIC WAIST BELT

A lightweight belt of web belting with strap leather tool loop and latigo tape thong. Furnished with friction buckle.

Cat. No.	Size Adjustable	Belt Width	Approx. Wt. Each
5227-M	32"-40"	1 ½"	⅜ lb.
5227-L	40"-48"	1 ½"	⅜ lb.

LEATHER WAIST BELT

A lightweight belt of strap leather with tool loops and tape thong. May be used with Klein tool punches.

Cat. No.	Size Adjustable	Belt Width	Approx. Wt. Each
5207-M	32"-40"	1 ½"	⅝ lb.
5207-L	38"-40"	1 ½"	⅝ lb.

LEATHER WAIST BELT

A utility waist belt made of 7/8 oz. strap leather 1" wide by 50" long. Designed to carry light weight tool pouches. Adjusts from 36 to 44".

Cat. No.	Belt Width	Approx. Wt. Each
5201	1"	¼ lb.

RUBBER GLOVE BAG

Made of hard woven belting duck. Has expansion gusset, 5½" across the top and 2¾" at bottom.

Cat. No.	Length	Width	Approx. Wt. Ea.
5121-15	15"	8"	¾ lb.
5121-19	Same as 1521-15 but length is 19"		⅞ lb.

If above bags are desired with pocket for goggles add G after number.

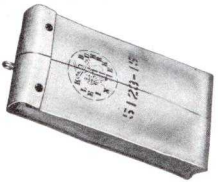
GLOVE & SLEEVE BAG

A combination bag providing separate storage for gloves and sleeves. Panels made of heavy No. 4 canvas and gussets of No. 10 canvas.

Cat. No.		Approx. Wt. Each
5122-14	for 14" gloves	⅞ lb.
5122-16	for 16" gloves	⅞ lb.
5122-18	for 18" gloves	⅞ lb.

If above bags are desired with pocket for goggles add G after number.

RUBBER GLOVE BAG



Made of hard woven belting duck. Has 2¾" side gusset.

Cat. No.	Length	Width	Approx. Wt. Ea.
5123-15	15"	8"	¾ lb.
5123-19	19"	8"	¾ lb.

If above bags are desired with pocket for goggles add G after number.

RUBBER GLOVE BAG

Designed to hold low voltage gloves. Made of durable No. 8 canvas and equipped with two way snap on the back.

Cat. No.	Length	Width	Approx. Wt. Ea.
5124-12	12"	8"	⅝ lb.

Same as 5124 but 15' deep with expansion gusset, 5½" at top and 2¾" at bottom.

Cat. No.	Length	Width	Approx. Wt. Ea.
5124-15	15"	8"	⅝ lb.
5124-17	17"	8"	¾ lb.
5124-19	19"	8"	1 lb.

If above bags are desired with pocket for goggles add G after number.

RAINWEAR BAG

Made of waterproof rubberized fabric. Protects rainwear when not in use. Two snap buttons on the flap and belt loop on the back.

Cat. No.	Length	Width	Approx. Wt. Ea.
5128	12"	8½"	¾ lb.

LINEMEN'S POUCH

One piece construction. Made of olive drab 12 oz. water repellant canvas with ¼" rope sewed in top. Top 7" diam. 9" deep. Rectangular bottom 7½" x 3½".

Cat. No.	Approx. Wt. Ea.
5179	⅜ lb.

INSTALLERS BAG

Made of No. 10 water repellant canvas with all seams double stitched. Two pockets are provided for small parts. Bottom is tapered so parts will stay in center. Equipped with snap.

Cat. No.	Diam.	Depth	Approx. Wt. Ea.
5143	6½"	8"	⅜ lb.

LADDER BAG

Roomy utility bag. Made of olive drab tightly woven fabric. Snap buttons on flaps fasten around steel frame which hooks on the step of the ladder or messenger strand. Bag is easily unsnapped.

Cat. No.	Size	Approx. Wt. Each
5114		1½ lb.
	Complete bag and frame assembly 12" x 6" x 8"	
5114-B	Bag only	⅜ lb.
5114-F	Frame only	1⅛ lb.

LINE HOSE BAGS

Designed for raising line hose . . . will hold several pieces in available position. May also be used to raise protective rubber blankets that are rolled. Made of No. 6 canvas. Has cycolac top ring and molded rubber bottom. Leather cuff extends 3″ up the side. ⅜″ manila rope handle is reinforced with leather where it is spliced around top ring. Standard lengths 36″, 48″ and 60″. Other lengths available on special order.

Cat. No.	Diam. Top	Diam. Bottom	Length	Approx. Wt. Each
5110-36	7″	7″	36″	1 ⅞ lb.
5110-48	7″	7″	48″	2 ⅞ lb.
5110-60	7″	7″	60″	2 ¾ lb.

A line hose bag which also may be used for holding hot sticks in aerial basket work. Made of No. 6 canvas. Cycolac top ring and molded rubber bottom. Handle ⅜″ manila rope reinforced with leather where it is spliced around top ring.

Cat. No.	Diam. Top	Diam. Bottom	Length	Approx. Wt. Each
5181-36	7″	7″	36″	1 ½ lb.
5181-48	7″	7″	48″	2 lb.
5181-60	7″	7″	60″	2 ½ lb.

SLEEVE ROLLS

Sleeve roll made of waterproof canvas. Prevents sharp creasing through insertion of reed alongside. Will accommodate any length sleeve.

Cat. No.	Length	Approx. Wt. Each
5173	31″	1 lb.

BLANKET ROLLS

Blanket roll made of waterproof canvas. Will accommodate rubber blankets 22″ x 22″, 36″ x 36″ and 27″ x 36″. Equipped with heavy straps and a strap carrying handle.

Cat. No.	Length	Approx. Wt. Each
5115-36		3 ½ lb.
5115-45	Same as above but will accommodate 45″ x 45″ blanket	4 lb.

VELCRO STRAPS

Made of 1″ wide gum rubber attached to Velcro — holds blankets rolled without the necessity of buckles. Will hold blankets securely around cross arms, poles, brackets, etc. Also ideal for storing rolled blankets. Available in two sizes 14″ of rubber with 12″ Velcro in each end and 30″ of rubber with 12″ of Velcro on each end.

Cat. No.	Length	Approx. Wt. Each
5196-14	14″	⅛ lb.
5196-30	30″	⅜ lb.

BLANKET CLAMP

Wooden burr clamp designed to hold blankets on wires. Extra heavy spring provides strong tension for high wind areas.

Cat. No.	Approx. Wt. Each
5117	½ lb.

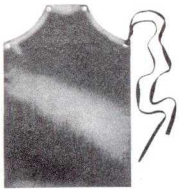
INDUSTRIAL APRONS

Made of heavy duty, long wearing Naugahyde. Vinyl surface has the highest resistance to abrasion of any flexible material, will outwear best quality rubber compounds 10 to 1.

ACID RESISTANT—Exposed, coated side is unaffected by most commercially used concentrates of acids, including nitric and chromate. For specific acid or alkaline conditions write for information.

OIL RESISTANT—Naugahyde will not soften nor become tacky when exposed to oils, fats and oil solvents. Even when such exposure is over a long period of time the coating will only gradually stiffen.

FLAME RESISTANT—Naugahyde material is classified as flash fire resistant and is not easily ignited. It will support combustion only if an open flame is directly applied to it. Naugahyde is a thermo plastic and will soften or melt if exposed to temperatures beyond those that can be endured by workmen.



Cat. No.	Type	Width	Length	Approx. Wt. Each
5530-30	Bib	24″	30″	1 lb.
5530-36	Bib	24″	36″	1 lb.
5530-42	Bib	24″	42″	1 ⅛ lb.
5535-18	Waist	24″	18″	⅞ lb.
5535-24	Waist	24″	24″	1 lb.

LEATHER TOOL BAG

Made of harness leather to stand hard usage. Has a leather shoulder strap combined with pad and hand strap. The bottom is three ply protected with steel studs. Retaining straps pass clear around the back for security. All seams lock stitched with hot waxed linen thread.

Cat. No.	Size	Av. Wt. Each	Cat. No.	Size	Av. Wt. Each
5108-14	14x8 in.	5 lb.	5108-20	20x8 in.	6½ lb.
5108-16	16x8 in.	5¾ lb.	5108-22	22x8 in.	7 lb.
5108-18	18x8 in.	6 lb.	5108-24	24x8 in.	7¼ lb.

EXTRA LARGE TOOL BAG

Yellow vinyl coated nylon fabric tool bag. Extra large size. Naugahyde reinforced bottom extends 3 inches up the sides. The bottom of the bag is protected with metal studs. Nylon web handles extend around bag for extra support. Wide opening steel frame securely riveted in top of bag. Extra flap for storm protection.

Cat. No.	Size	Depth	Approx. Wt. Each
5180	24 x 10 in.	18 in.	6½ lb.

CANVAS TOOL BAGS

Made of one-piece No. 8 white canvas covered on the bottom and 3 in. up the sides with heavy leather lock stitched and cemented. Bottom is protected with steel studs. Mouth has steel frame. Harness leather handles and two retaining straps and buckles. May be furnished with shoulder strap to order. Width 6 in.

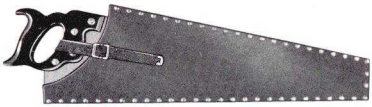
Cat. No.	Length	Depth	Av. Wt. Each	Cat. No.	Length	Depth	Av. Wt. Each
5102-12	12″	10″	2¼ lb.	5102-20	20″	15″	3½ lb.
5102-14	14″	14″	2½ lb.	5102-22	22″	15″	3¾ lb.
5102-16	16″	14″	3 lb.	5102-24	24″	15″	4 lb.
5102-18	18″	14″	3¼ lb.				

A strong bag of finest No. 8 white canvas. One piece, covered with leather on the bottom and 8 in. up the sides. Leather is lock stitched and cemented. Bottom protected with steel studs. Mouth of the bag has steel frame. Harness leather handles with two retaining straps and buckles. May be furnished with shoulder strap to order. Width 6 in.

Cat. No.	Length	Depth	Av. Wt. Each	Cat. No.	Length	Depth	Av. Wt. Each
5105-16	16″	14″	3 lb.	5105-22	22″	15″	4 lb.
5105-18	18″	14″	3½ lb.	5105-24	24″	15″	4½ lb.
5105-20	20″	15″	3¾ lb.				

FIBER AND LEATHER GUARDS

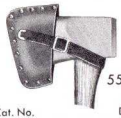
Guards are made of vulcanized fiber or harness leather as specified. Securely riveted and equipped with adjustable web straps. Guards protect the user from cutting edges and also protect the edges in transfer and storage.



Cat. No.	Description	Approx. Wt. Each
5502	26" Hand Saw Guard, Fiber	1 ¼ lb
5503	30" Docking Saw Guard, Fiber	1 ⅜ lb.
5505	26" Pruning Saw Guard, Fiber	1 lb.
5506	24" Tuttle Tooth Pruning Saw Guard, Fiber	⅞ lb.

Cat. No.	Description	Approx. Wt. Each
5507	Pole Pruning Saw Guard, Fiber	¼ lb.

Cat. No.	Description	Approx. Wt. Each
5508	Cable Saw Guard, Fiber	½ lb.



5509

5524

Cat. No.	Description	Approx. Wt. Each
5509	3 ½LB. Axe Guard, Fiber	⅛ lb.
5509-L	Same as above except made of harness leather	⅜ lb.

Cat. No.	Description	Approx. Wt. Each
5524	Double bit Axe Guard, Fiber	½ lb.
5524-L	Double bit Axe Guard, Leather	1 lb.

Cat. No.	Description	Approx. Wt. Each
5511	Bush Hook Guard, Fiber	½ lb.

Cat. No.	Description	Approx. Wt. Each
5513-L	10" Hack Saw Blade Guard, Leather	¼ lb.

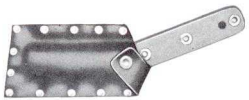
Cat. No.	Description	Approx. Wt. Each
5515	2" Width Chisel Guard, Fiber	⅜ lb.

Cat. No.	Description	Approx. Wt. Each
5517	Cant Hook Guard, Fiber	½ lb.

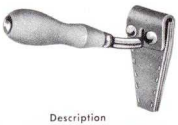
Cat. No.	Description	Approx. Wt. Each
5520-L	Ladder Spur Guard, Leather. Web straps for attaching to bottom rung.	⅜ lb.

Cat. No.	Description	Approx. Wt. Each
5522	26" Curved Pruning Saw Guard, Fiber Will accomodate shorter lengths.	1 lb.
5522-L	Similar to above but made of leather and equipped with ring and snap for attaching to tree trimmer saddle. Leather is usually preferred in tree work.	1 ¾ lb.

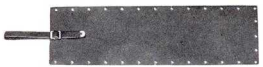
Cat. No.	Description	Approx. Wt. Each
5561	Compass Saw Guard, Fiber	⅜ lb.



Cat. No.	Description	Approx. Wt. Each
5574-L	Splitting or Chipping Knife Guard, Leather	¼ lb.



Cat. No.	Description	Approx. Wt. Each
5575-L	Shave Hook Guard, Leather	⅜ lb.



Chain saw guard, fiber, with inside dimensions 1" wide, 6" high in various lengths.

		Approx. Wt. Each
5580-18	for chain saws with blades up to 18"	1 lb.
5580-24	for chain saws with blades up to 24"	1 ½ lb.
5580-30	for chain saws with blades up to 30"	1 ⅝ lb.

CANVAS BUCKETS — NON METALLIC

5104

5106

Most widely used bucket by public utilities and selected as standard by the U.S. Government. Made of No. 1 canvas with cycolac top ring. Bottom is reinforced leather extending 3" up the sides. Inside pocket 8" x 8". Manila rope handle reinforced with leather where it is spliced around top ring.

Cat. No.	Diam. Top	Diam. Bottom	Height	Approx. Wt. Each
5104	12"	12"	17"	3⅛ lb.
5104-S	Same as above but equipped with 2012 malleable swivel snap.			3⅛ lb.

Made of No. 6 canvas. Has cycolac top ring. Bottom is molded rubber. ⅜" manila rope handle is reinforced with leather where it is spliced around top ring.

Cat. No.	Diam. Top	Diam. Bottom	Height	Approx. Wt. Each
5106	9"	9"	14"	1⅞ lb.
5106-P	Same as above but with two 7" x 7" inside pockets.			1⅞ lb.
5106-PS	Same as 5106-P but equipped with No. 2012 malleable swivel snap.			1⅞ lb.

5109

5103-s

A popular priced canvas bucket, made of No. 6 canvas. Has cycolac top ring and molded rubber bottom. ½" manila rope handle is reinforced with leather where it is spliced around top ring.

Cat. No.	Diam. Top	Diam. Bottom	Height	Approx. Wt. Each
5109	12"	9"	12"	2¼ lb.
5109-P	Same as above but with 8" x 8" inside pocket.			2¼ lb.
5109-S	Same as 5109 but equipped with No. 2012 malleable swivel snap.			2¼ lb.
5109-PS	Same as 5109-P but equipped with No. 2012 swivel snap.			2¼ lb.

Made of No. 1 canvas with cycolac top ring and molded rubber bottom. ½" manila rope handle spliced around top ring. Equipped with No. 2012 malleable swivel snap.

Cat. No.	Diam. Top	Diam. Bottom	Height	Approx. Wt. Each
5103-S	12"	9"	12"	2⅝ lb.

5113

5144-s

Made of No. 6 canvas with cycolac top ring and molded rubber bottom. ½" manila rope handle is reinforced with leather where it is spliced around top ring.

Cat. No.	Diam. Top	Diam. Bottom	Height	Approx. Wt. Each
5113	12"	9"	13"	1⅞ lb.
5113-S	Same as above but equipped with No. 2012 malleable swivel snap.			1⅞ lb.

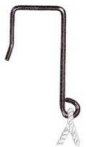
An oval bucket with 15 pockets on the inside. Made of heavy duty No. 6 Canvas. Tripod suspension prevents bucket tipping. Snap is attached for hanging over cross arm hooks or attaching to hand lines.

Cat. No.	Approx. Wt. Each
5144-S	2⅜ lb.

SWIVEL SNAP HOOK

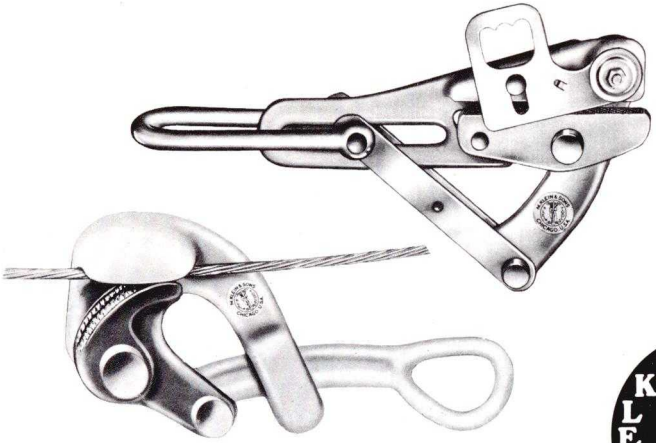
Malleable Swivel Snap—galvanized. Made especially for use on hoisting buckets. NOT TO BE USED ON SAFETY LINES. Any buckets or line hose bags may be equipped with snap by adding letter S after the catalog Number.

Cat. No.	Length	Approx. Wt. Each
2012	2"	⅜ lb.

CROSS ARM HOOK

Made of 5/16" steel rod covered with gum rubber. Will withstand voltages up to 20,000 volts. Opening 4½", Length 10½". Also available vinyl coated.

Cat. No.	Description	Approx. Wt. Each
2101-V	Vinyl Coated	⅛ lb.

KLEIN "CHICAGO" AND "HAVEN" GRIPS



For years Klein Grips have been the accepted standard of public utility companies and others requiring a strong, non-slipping grip.

Klein Grips are available for use on any type of conductor and patterns are available specially designed for hot line work.

These grips are to be used for pulling up lines to tension only and are not recommended for use as anchors.

TO CHOOSE CORRECT SIZE OF GRIP

Consult reference tables in the rear of this catalog for diameters of wire in general use. For your convenience there is also a table giving decimal equivalents of fractions.

If you wish to send us outside diameters and full description of wire or strand, we will recommend the proper grip.

We recommend Klein "Chicago" Grips with bronze-lined jaws to avoid possible damage to surface of conductor.

Grips with bronze-lined jaws are indicated by the letter "B" after the catalog number. All grips furnished with cadmium plate with dichromate gold overlay.

All Chicago Grips are furnished with self-locking loop handles which allow the Grip Jaws to be locked in any open position. To lock, open Jaws and fold loop handle toward side plates. (This feature not standard on grips or hot line work. May be furnished to special order.)

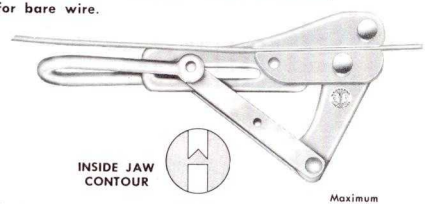
GRIP MAINTENANCE:

Bulletin 261 on grip maintenance available on request.

KLEIN "CHICAGO" GRIPS FOR BARE WIRE

(SOLID AND STRAND)

Plain type jaw suitable for bare wire.



Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
1613-30	6 B & S Solid (.162 in.)	12 B & S Solid (.081 in.)	1500 lb.	1 ½ lb.	3 in.
1613-30B	6 B & S Solid (.162 in.)	12 B & S Solid (.081 in.)	1500 lb.	1 ½ lb.	3 in.
**1613-40	1/0 B & S Strand (.373 in.)	10 B & S Solid (.102 in.)	4500 lb.	3 lb.	4 in.
**1613-40B	1/0 B & S Strand (.373 in.)	10 B & S Solid (.102 in.)	4500 lb.	3 lb.	4 in.

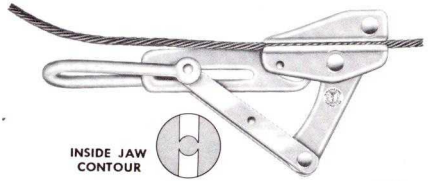
B indicates bronze-lined jaws.

**Grip now made of alloy steel heat-treated to increase safe load from 2250 lb. to a safe load of 4500 lb. Safe load stamped on each grip.

KLEIN "CHICAGO" GRIPS

FOR BARE ALUMINUM AND COPPER CABLES

This series of grips is specially designed for use on bare A.C.S.R., aluminum and stranded copper cables.



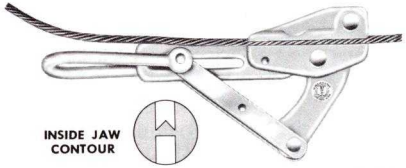
Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
**1656-20	1/0 A.C.S.R. (.398 in.)	6 A.C.S.R. (.198 in.)	4500 lb.	3 lb.	4 in.
**1656-20B	1/0 A.C.S.R. (.398 in.)	6 A.C.S.R. (.198 in.)	4500 lb.	3 lb.	4 in.
**1656-30	3/0 A.C.S.R. (.502 in.)	2 A.C.S.R. (.316 in.)	4500 lb.	3 ¾ lb.	4 ¾ in.
**1656-30B	3/0 A.C.S.R. (.502 in.)	2 A.C.S.R. (.316 in.)	4500 lb.	3 ¾ lb.	4 ¾ in.
1656-40	336,400 CM A.C.S.R. (.741 in.)	3/0 A.C.S.R. (.502 in.)	8000 lb.	7 ½ lb.	5 ½ in.
1656-40B	336,400 CM A.C.S.R. (.741 in.)	3/0 A.C.S.R. (.502 in.)	8000 lb.	7 ½ lb.	5 ½ in.
1656-50	477,000 CM A.C.S.R. (.883 in.)	397,500 CM A.C.S.R. (.783 in.)	8000 lb.	7 ½ lb.	5 ½ in.
1656-50B	477,000 CM A.C.S.R. (.883 in.)	397,500 CM A.C.S.R. (.783 in.)	8000 lb.	7 ½ lb.	5 ½ in.

B indicates bronze-lined jaws.

**Grip now made of alloy steel heat-treated to increase safe load from 2200 lb. and 3500 lb. to a safe load of 4500 lb. Safe load stamped on each grip.

KLEIN IMPROVED "CHICAGO" GRIPS

FOR MESSENGER, GUY STRAND AND CONDUCTORS UP TO ½-IN. DIAM.

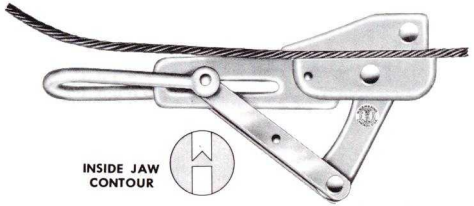


Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
1628-5	4/0 B & S 12 Strand (.552 in.)	6 Solid (.162 in.)	8000 lb.	6 lb.	5 in.
1628-5B	4/0 B & S 12 Strand (.552 in.)	6 Solid (.162 in.)	8000 lb.	6 lb.	5 in.

B indicates bronze-lined jaws.

KLEIN "CHICAGO" GRIPS

FOR MESSENGER AND GUY STRAND AND WIRE ROPE

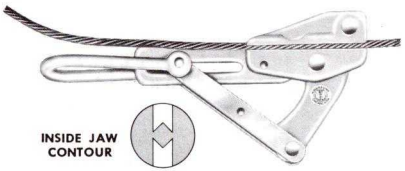


Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
1628-16	5/8" Galvanized Steel Strand (.625 in.)	5/16" Galvanized Steel Strand (.312 in.)	15,000 lb.	15½ lb.	7¼ in.
1628-16B	5/8" Galvanized Steel Strand (.625 in.)	5/16" Galvanized Steel Strand (.312 in.)	15,000 lb.	15½ lb.	7¼ in.

B indicates bronze-lined jaws.

KLEIN HIGH STRENGTH "CHICAGO" GRIPS

FOR PULLING UP GALVANIZED GUY WIRES AND EXTRA HIGH STRENGTH CABLES

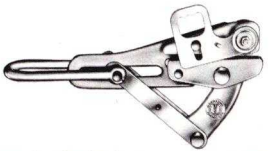


Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Weight Each	Jaw Length
1613-40 DV	3/8 in.	1/8 in.	4,500 lb.	3 lb.	4 in.
1628-5 DV	1/2 in.	5/32 in.	8,000 lb.	6 lb.	5 in.
1628-16 DV	5/8 in	5/16 in.	15,000 lb.	16 lb.	7¼ in.

KLEIN IMPROVED "CHICAGO" GRIPS

FOR HOT LINE WORK

FURNISHED WITHOUT SPRING



May be placed on wire with hot line stick. When stick is removed, safety latch closes automatically—cannot fall off accidentally. **For hot or dead work grips can be furnished with springs.** If springs are desired, please prefix letter "S" before catalog number. Example S 1628-5BH. Lock open feature furnished on special order.

FOR BARE CONDUCTORS

Cat. No.	Maximum Conductor	Minimum Conductor	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
**1613-40H	1/0 B & S Strand (.373 in.)	10 B & S Solid (.102 in.)	4500 lb.	3¼ lb.	4 in.
**1613-40BH	1/0 B & S Strand (.373 in.)	10 B & S Solid (.102 in.)	4500 lb.	3¼ lb.	4 in.
1628-5H	4/0 B & S Strand (.552 in.)	6 Solid (.162 in.)	8000 lb.	6¼ lb.	5 in.
1628-5BH	4/0 B & S Strand (.552 in.)	6 Solid (.162 in.)	8000 lb.	6¼ lb.	5 in.
**1656-20BH	1/0 A.C.S.R. (.398 in.)	6 A.C.S.R. (.198 in.)	4500 lb.	3¼ lb.	4 in.
**1656-30BH	3/0 A.C.S.R. (.502 in.)	2 A.C.S.R. (.316 in.)	4500 lb.	4 lb.	4¾ in
1656-40BH	336,000 CM A.C.S.R. (.741 in.)	3/0 A.C.S.R. (.502 in.)	8000 lb.	7¾ lb.	5½ in.
1656-50BH	477,000 CM A.C.S.R. (.883 in.)	397,500 CM A.C.S.R. (.783 in.)	8000 lb.	7¾ lb.	5½ in.
*1656-ABH	500,000 CM A.C.S.R. (.904 in.)	3/0 A.C.S.R. (.502 in.)	8000 lb.	7¾ lb.	5½ in.

*For use on aluminum cables where minimum conductor damage is essential, we hold stock of parts, and jaws are milled to fit exact diameter of cable. Range of conductor size is given for general information and is made for one size cable only. ORDERS MUST SPECIFY EXACT OUTSIDE DIAMETER OF CABLE.

**Grip now made of alloy steel heat-treated to increase safe load from 2200 lb. and 3500 lb. to a safe load of 4500 lb. Safe load stamped on each grip.

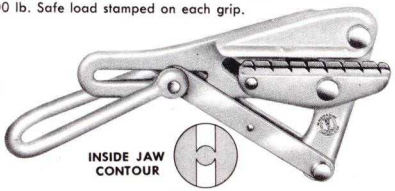
FOR INSULATED CONDUCTORS

Note: Due to various types of weatherproof coatings available, selection of proper grips is determined by O. D. of cable.

Cat. No.	Maximum Conductor	Minimum Conductor	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
**1611-20H	.420"	.198"	4500 lb.	3¼ lb.	4 in.
**1611-30H	.500"	.313"	4500 lb.	4 lb.	4¾ in.
**1611-40H	.700"	.500"	8000 lb.	7¾ lb.	5½ in.
**1611-50H	.860"	.672"	8000 lb.	7¾ lb.	5½ in.
**1659-20H	.420"	.200"	4500 lb.	3¼ lb.	4 in.
1659-30H	.500"	.313"	4500 lb.	4 lb.	4¾ in.
1659-40H	.796"	.490"	8000 lb.	7¾ lb.	5½ in.
1659-50H	1.014"	.796"	8000 lb.	7¾ lb.	5½ in.

**Grip now made of alloy steel heat-treated to increase safe load from 2200 lb., 2250 lb., and 3500 lb. to a safe load of 4500 lb., and former 3750 lb. now has a safe load of 8000 lb. Safe load stamped on each grip.

KLEIN "CHICAGO" GRIPS FOR WEATHERPROOF WIRE



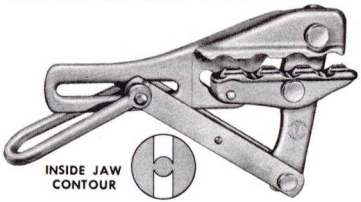
Cat. No.	Maximum Wire Size	Minimum Wire Size	Maximum Safe Load	Approx. Weight Each	Jaw Length
**1611-20	.420"	.198"	4500 lb.	3 lb.	4"
**1611-30	.500"	.313"	4500 lb.	3¾ lb.	4¾"
**1611-40	.700"	.500"	8000 lb.	7¾ lb.	5½"
**1611-50	.860"	.672"	8000 lb.	7¾ lb.	5½"

NOTE: Due to various types of weatherproof coatings available, selection of proper grips is determined by outside diameter of cable.

**Grip now made of alloy steel heat-treated to increase safe load from 2200 lb. and 3500 lb. to a safe load of 4500 lb., 3750 lb. now has a safe load of 8000 lb. Safe load stamped on each grip.

KLEIN "CHICAGO" GRIPS

FOR PVC COVERED CONDUCTORS



Specially machined jaws allow snaking insulated conductors through jaws, eliminating slippage and preventing conductor damage. No necessity to strip insulation from conductor.

Cat. No.	Maximum Conductor	Minimum Conductor	Maximum Safe Load	Approx. Weight Each	Jaw Length
**1659-20	.420″	.200″	4,500 lb.	3 lb.	4″
**1659-30	.500″	.313″	4,500 lb.	3¾ lb	4¾″
1659-40	.796″	.490″	8,000 lb.	7¾ lb.	5½″
1659-50	1.014″	.796″	8,000 lb.	7¾ lb.	5½″

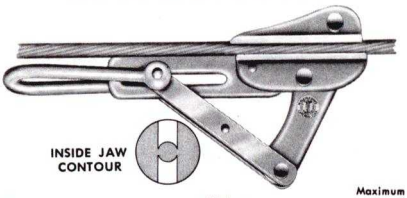
**Grip now made of alloy steel heat-treated to increase safe load from 2200 lb. and 3500 lb. to a safe load of 4500 lb. Safe load stamped on each grip.

KLEIN "CHICAGO" GRIPS

FOR LARGE DIAMETER CONDUCTORS

For hollow conductors and other large diameter cables the jaws of the grip must be shaped to provide maximum contact with the circumference of the cable to prevent conductor damage. We hold grips in blank and finish as necessary. Allow 30 days for delivery.

ORDERS MUST SPECIFY EXACT OUTSIDE DIAMETER OF CABLE MADE FOR ONE SIZE CABLE ONLY



Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Weight Each	Jaw Length
*1656-AB	500,000 CM A.C.S.R. (.904″)	3/0 A.C.S.R. (.502″)	8000 lb.	7½ lb.	5½″
1628-16BP	477,000 CM A.C.S.R. (.883″)	2 A.C.S.R. (.316″)	15,000 lb.	17 lb.	7¼″
1628-30	1,033,500 CM A.C.S.R. (1.246″)	477,000 CM A.C.S.R. (.833″)	20,000 lb.	25 lb.	10¾″
1628-30B	1,033,500 CM A.C.S.R. (1.246″)	477,000 CM A.C.S.R. (.833″)	20,000 lb.	25 lb.	10¾″
1628-40	1,590,000 CM A.C.S.R. (1.545″)	1,033,000 CM A.C.S.R. (1.246″)	25,000 lb.	29 lb.	10¾″
1628-40B	1,590,000 CM A.C.S.R. (1.545″)	1,033,000 CM A.C.S.R. (1.246″)	25,000 lb.	29 lb.	10¾″
*1628-50	2,500,000 CM Alu. (1.824″)	666,600 CM A.C.S.R. (1.00″)	25,000 lb.	29 lb.	10¾″
*1628-50B	1,780,000 CM A.C.S.R. (1.602″)	666,600 CM A.C.S.R. (1.00″)	25,000 lb.	29 lb.	10¾″

B indicates bronze-lined jaws.

*Furnished with removable floating jaw, which allows maximum coverage of cables and eliminates conductor damage, particularly under heavy loads. The removable jaw is held in place by a bolt swaged into the lever arm of grip secured by a nut and cotter pin. It is necessary to remove the jaw of the grip to insert the cable.

KLEIN "CHICAGO" GRIPS

Bell System Type

1628-5 AT is identical to Bell System type "L" strand puller and 1628-16 AT identical to Bell System type "H" strand puller. Fitted with chain, toggle and shackle as shown.

Catalog No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Weight Each	Jaw Length
1628-5 AT	½" Galvanized Steel Strand (.500")	(.190")	8,000 lb.	6 lb.	5"
1628-16 AT	½" Galvanized Steel Strand (.500")	5/16 Galvanized Steel Strand (.312")	15,000 lb.	15½ lb.	7¼"

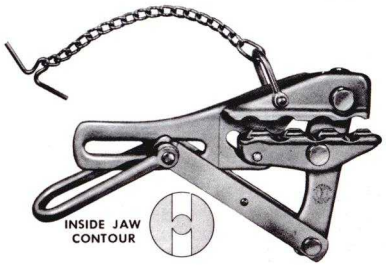
KLEIN "CHICAGO" GRIPS

For Figure 8 Telephone Cables

Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
1613-80	.109 support wire maximum .174	.149 in.	1,500 lb.	1½ lb.	3 in.

For support wire .134 and larger, refer to 1656 series. Outside diameter of support wire includes thickness of Polyethylene coating. Grips are applied to supporting member of cable.

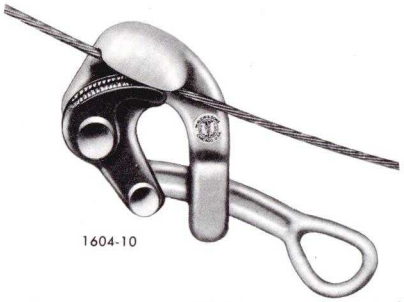
KLEIN "CHICAGO" GRIPS



This grip is similar to Bell System Type B Strand Puller. Designed to pull ¼ in. figure 8 telephone cable. Serpentine grooves mesh on insulation and strand preventing slippage. Fitted with chain, toggle and shackle to prevent grip from falling in case of disengagement with conductor.

Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Wt. Ea.	Jaw Length
1659-5AT	.375 in.	.200 in.	5,000 lbs.	6 lbs.	5 in.

KLEIN IMPROVED "HAVEN" GRIPS



1604-10

Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Weight
1604-10	4 B & S(.204")	14 B & S(.064")	2,500 lb.	1 lb.
1604-20	.500 Steel Strand	7 B & S(.144")	5,000 lb.	2½ lb.

Same as above but with swing latch

Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Weight
1604-20L	.500 Steel Strand	7 B & S(.144")	5,000 lb.	2½ lb.

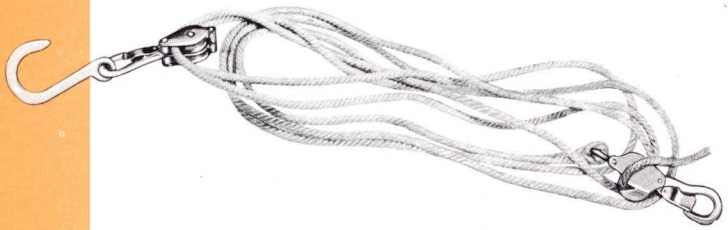
1625-20

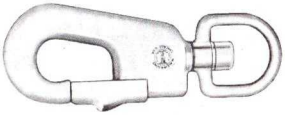
Can be furnished for ⅞" or 1" cable to order

Cat. No.	Maximum Cable Size	Minimum Cable Size	Maximum Safe Load	Approx. Weight
1625-20	.750" Wire Rope	2 B & S(.284")	8,000 lb.	3½ lb.

SECTION NO. 6

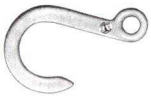
TACKLES, HAND LINES SNAP HOOKS AND SLINGS





Maximum safety is the predominant feature of Klein Tackles and Hand Lines. All hooks and snaps are drop forged from alloy steel for maximum strength. The rope is of the finest quality four strand Manila available. All equipment is tested to carry the load it is designed for with an ample margin of safety.

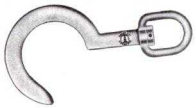
ANCHOR HOOK FOR TACKLES



A drop forged steel hook approximately 5½" long by 3¼" across the throat. Eye has an inside diameter of ⅝" to engage with snap on Klein Tackle No. 1802-30 and H-1802-30. Galvanized finish. Designed to slip under insulator and engage pin of crops arm.

Cat. No.	Max. Safe Load	Approx. Wt. Each
258	1,500 lbs.	¼ lb.

SWIVEL ANCHOR HOOK



Drop forged steel. Approximately 6½" long and 3¼" across the throat. Swivel clevis will engage with snap on Klein Tackles No. 1802-30 and H-1802-30. Swivel prevents twisting and kinking of rope.

Cat. No.	Max. Safe Load	Approx. Wt. Each
259	1,500 lbs.	⅜ lb.

SAFETY SNAP HOOK

Made of drop forged carbon steel. Designed to snap over ladder rungs or re-bar reinforcements which are used in construction. Maximum throat opening 1½". Inside diameter of eye $^{5}/_{16}$". Overall length 6¼".

Cat. No.	Max. Safe Load	Approx. Wt. Each
457	1,500 lbs.	½ lb.
457-5	Same as above but heat treated to 2H2 in a minimum of 5,000 lb. tensile.	½ lb.

SPREADER HOOK

Drop forged, welded construction designed for use with tree trimmer harness. Comfort is increased because the rings are separated approximately 8" relieving leg pressure and allowing greater freedom of leg movement while harness is worn.

Cat. No.	Approx. Wt. Each
456	1 lb.

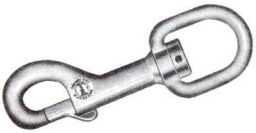
HAND LINE SNAP HOOKS

Drop forged steel. Length overall 5½". Eye is 1" I.D. Snap opens to ¾".

Cat. No.	Max. Safe Load	Approx. Wt. Each
443-A	1,500 lbs.	½ lb.

Rope snap hook made of drop forged steel. Maximum throat opening $^{11}/_{16}$". Inside diameter of eye 1⅛". Overall 5¼".

Cat. No.	Max. Safe Load	Approx. Wt. Each
468	1,500 lbs.	½ lb.
468-5	Same as above but heat treated to attain a minimum of 5,000 lbs. tensile	½ lb.
468-L	Same as 468 but equipped with a positive locking device.	½ lb.
468-NS	Same design as 468 but forged of brass alloy steel to provide non-sparking characteristics. Approximately 1,200 lb. tensile.	½ lb.



Drop forged steel with swivel clevis and quick acting plunger style latch. Designed to take ½" or lighter hand lines. Swivel action prevents accidental fouling into secondary wires.

Cat. No.	Max. Safe Load	Approx. Wt. Each
470	750 lbs.	¼ lb.

SELF LOCKING BLOCK TACKLE

Light steel shell blocks galvanized, fitted with snubbing hook to lock load in any position. Sheaves are aluminum alloy and are bronze bushed. May be had with drop forged hook #258 or swivel hook #259. These hooks are designed to fit under insulator and engage pin on cross arm. Rope is of highest quality four-strand Manila. Rope not spliced to block. Safe load 1200 lb.

Cat. No.	Description	Weight Each
1802-30	Furnished with 25 ft. ⅜" rope and detachable hook #258	2½ lb.
1802-30S	Furnished with 25 ft. ⅜" rope and detachable swivel anchor hook #259	2½ lb.
H1802-30-SR	Same as above but with rope attached to block.	

SELF LOCKING BLOCK TACKLE (WITH GUARDED SNAPS)

Identical with the block tackle described above except that the snaps are "guarded." The nose of each hook is lengthened to extend over the latch or keeper. Safe load 1,200 lb. Rope not spliced to block.

Cat. No.	Description	Weight Each
H1802-30	Furnished with 25 ft. ⅜" rope and detachable hook #258	3½ lb.
H1802-30S	Furnished with 25 ft. ⅜" rope and detachable swivel anchor hook #259	3½ lb.
H1802-30-SR	Same as above but with rope attached to block.	

SELF LUBRICATING BLOCK TACKLE

Consists of two double sheave blocks. The spring-guarded snap hooks and eye are drop forgings. Side plates are wrought. Pulleys are bronze bushed and self-lubricating. Galvanized finish. Rope is of four-strand Manila spliced to eye of block with galvanized thimble.

Cat. No.	Description	Weight Each
1802-40	Furnished with 30 ft. of ½" rope	15½ lb.
1802-50	As above with ⅝" rope	17¾ lb.
1802-60	As above with ¾" rope	19½ lb.

Other lengths of rope can be furnished to order.

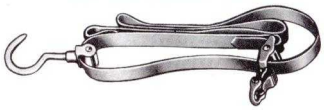
KLEIN HAND LINES

Highest grade four-strand Manila rope spliced to eye of snap hook #443-A. Snap hook is similar to those used on safety straps except that it has a round eye. Hook opens to ¾".

Other lengths of rope can be furnished to order.

Cat. No.	Description	Weight Each
1803-60	With 75 ft. ⅜" rope and #443-A snap	3½ lb.
1804-60	With 75 ft. ⅜" rope and #470 swivel snap	3½ lb.
1803-75	With 75 ft. ½" rope and #443-A snap	5 lb.
1804-75	With 75 ft. ½" rope and #470 swivel snap	5 lb.

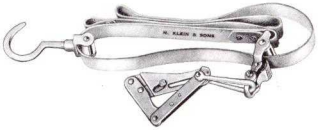
HOWE WIRE TOOL



Strap made of finest harness leather. Swivel hook of forged steel with large opening. Shank of hook lengthened to reach under insulator. Other end has locking device to hold the load at any distance. All metal parts are galvanized finish.

Cat. No.	Size	Weight Each
1702-20	Leather Strap 1" wide, 7' long	2 lb.
241	Extra Leather Strap for Above	
1702-20N	Nylon Strap 1" wide, 7' long	2 lb.
241N	Extra Nylon Strap for Above	

"CHICAGO" LINEMANS TOOL



This combines the wire tool shown above #1702-20 with a "Chicago" Grip #1613-30.

Other sizes of grips in this combination can be furnished on special order.

Cat. No.	Size	Weight Each
1700-30	For 6 wire and smaller down to 12 B&S. Leather Strap	3½ lb.
1700-30N	Same as above but with Nylon Strap	3½ lb.

NON-METALLIC SLINGS

Return Eye

Endless

Double Eye Standard

Double Eye Single Ply

SLINGS COME IN 3 FT. LENGTHS. OTHER LENGTHS AVAILABLE ON SPECIAL ORDER.

Klein-Buhrke Slings are made of specially woven nylon Sling Web approximately 6,000 lbs. tensile per inch of width. Available in 1", 1¾", 3" and 4" web. Where extra abrasion resistance is required the eyes and contact sections are lined with tough latigo leather.

FLEXIBILITY. Klein-Buhrke Slings conform to the load and bend across the width of the sling. Rigged in a basket hitch, they provide a gentle flexing action around the load; rigged in a choke hitch, they perform to the arcs of the load, giving maximum support.

SAFETY. Because they are made of soft, flexible nylon these slings have no sharp edges to cut into the load or endanger the worker's hands. Because of their high gripping action there is little danger of the load slipping.

Suggested formula for determining safe working load:

$$\frac{\text{Breaking Strength}}{\text{Safety Factor}} = \text{Safe Working Load}$$

A basket hitch permits slightly more than double the safe working load of a choke hitch.

Cat. No.	Width	Type	Approx. Wt. Each
5600-RE-2	2"	Return Eye	1 ⅜ lb.
5600-RE-2DT	2"	Return Eye	2 ½ lb.
5600-RE-3 ½	3 ½"	Return Eye	2 lb.
5600-RE-3 ½ DT	3 ½"	Return Eye	2 ⅛ lb.
5601-E-1	1"	Endless	⅜ lb.
5601-E-1DT	1"	Endless	1 ¼ lb.
5601-E-1 ¾	1 ¾"	Endless	1 lb.
5601-E-1 ¾ DT	1 ¾"	Endless	1 ⅛ lb.
5601-E-3	3"	Endless	2 ¼ lb.
5601-E-4	4"	Endless	2 ¾ lb.
5602-DE-1	1"	Double Eye Standard	¾ lb.
5602-DE-1 ¾	1 ¾"	Double Eye Standard	1 ⅛ lb.
5602-DE-3	3"	Double Eye Standard	2 ¼ lb.
5602-DE-4	4"	Double Eye Standard	2 ¾ lb.
5603-DE-1	1"	Double Eye Single Ply	⅝ lb.
5603-DE-1 ¾	1 ¾"	Double Eye Single Ply	1 lb.
5603-DE-3	3"	Double Eye Single Ply	2 lb.
5603-DE-4	4"	Double Eye Single Ply	2 ¾ lb.

POLE SLING

Made of nylon web stitched with nylon thread 1¾" wide, 8,700 lbs. tensile strength. Copper rivets with burrs at the point of wear on the pole. Unlimited uses where a running loop wrap around pole is desired. Non-conductive, not affected by oil or creosote. Resistant to moisture, mildew and fungi.

Cat. No.	Length	Approx. Wt. Each
5606	30"	12 lb.

Other Sizes to Order

CROSSARM SLING

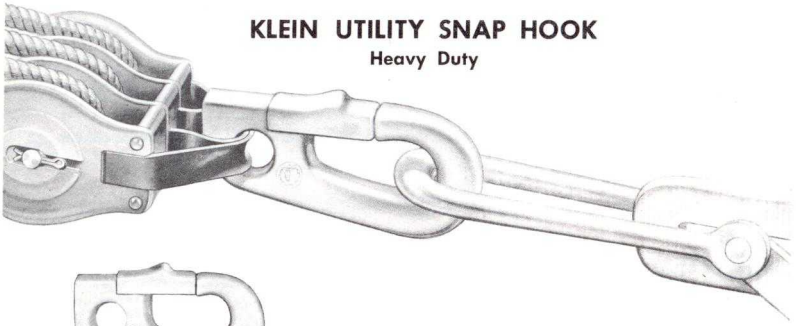
Made of 12 plies of nylon laminated together with neoprene and pre-formed for ease in placing around the crossarm prior to vulcanization. 1" wide. Minimum breaking strength 2750 lbs. "D" rings ½" welded wire securely riveted with copper rivets and burrs. Non-conductive, not affected by oil or creosote. Resistant to moisture, mildew and fungi. Can be cleaned with regular solvents.

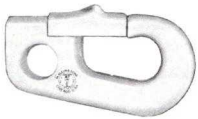
Cat. No.	Length	Approx. Wt. Each
5607	15½"	6 lb.

Other Sizes to Order

KLEIN UTILITY SNAP HOOK

Heavy Duty





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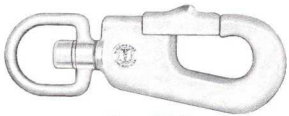

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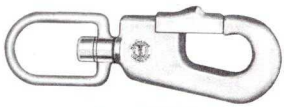

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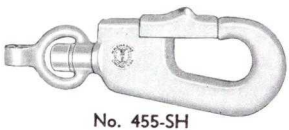

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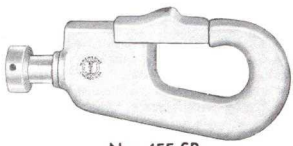


No. 455-SP

This hook is designed to meet requirements of safety engineers. It will not come loose on a slacked line, is easy to apply and is able to pull up a transformer or other heavy load. No taping or wiring of throat is necessary. Quickly pays for itself in time and material saved. Attaches securely for maximum safety thus guarding groundman.

Made of forged steel designed to carry a working load of 8,000 lb. with adequate safety factor. Snaps on with one hand and may be used on any conventional steel block 4 inches or smaller by simply replacing conventional hook with Klein Snap Hook.

No. 455 furnished with eye 15/16-inch I.D. Can be supplied with eye 1-1/4-inch I.D. for larger block.

Cat. No.	Description	Length	Wt. Each
455	Solid eye	4 ½ in.	1 lb.
455-S	Swivel eye ¾ in. long	7 ½ in.	1 ¼ lb.
455-SCE	Same as above but extra long eye 1 ½ in.	8 ½ in.	1 ¼ lb.
455-SH	Swivel eye for use with ¾ ton hoist	7 ½ in.	1 ¼ lb.
455-SH-3	Swivel eye for use with 1 ½ ton hoist	7 ½ in.	1 ¼ lb.
455-SP	With male fixture for 1 ½ ton hoists swivel housing	7 ½ in.	1 ¼ lb.
455-SP-6	With male fixture for 3 ton hoists swivel housing	7 ½ in.	1 ¼ lb.

SAFE LOAD ON ALL SNAP HOOKS—8000 LB.

HOOK CAN'T FALL OFF

NO TAPE NECESSARY

Comparative Sizes of Different Wire Gauges in Decimals of an Inch

No. of Wire Gauge	*American or Brown & Sharpe (B. & S.)	Birmingham or Eng. Wire (B. W. G.)	New British Standard (N. B. S.)
0000	.460	.454	.400
000	.40964	.425	.372
00	.3648	.380	.348
0	.32486	.340	.324
1	.2893	.300	.300
2	.25763	.284	.276
3	.22942	.259	.252
4	.20431	.238	.232
5	.18194	.220	.212
6	.16202	.203	.192
7	.14428	.180	.176
8	.12849	.165	.160
9	.11443	.148	.144
10	.10189	.134	.128
11	.090742	.120	.116
12	.080808	.109	.104
13	.071961	.095	.092
14	.064084	.083	.080
15	.057068	.072	.072
16	.05082	.065	.064
17	.045257	.058	.056
18	.040303	.049	.048
19	.03589	.042	.040
20	.031961	.035	.036
21	.028462	.032	.032
22	.025347	.028	.028
23	.022571	.025	.024
24	.0201	.022	.022
25	.0179	.020	.020
26	.01594	.018	.018
27	.014195	.016	.0164
28	.012641	.014	.0148
29	.011257	.013	.0136
30	.010025	.012	.0124
31	.008928	.010	.0116
32	.00795	.009	.0108
33	.00708	.008	.010
34	.006304	.007	.0092
35	.005614	.005	.0084
36	.005	.004	.0076
37	.004453	.....	.....
38	.003965	.....	.....
39	.003531	.....	.....
40	.003144	.....	.....

*The American (B. & S.) gauge is generally used for solid wires of aluminum or copper.

The B. W. G. is generally used for steel and iron wire.

Decimal Equivalents of Fractions of an Inch

8ths	
1/8	.125
1/4	.250
3/8	.375
1/2	.500
5/8	.625
3/4	.750
7/8	.875
16ths	
1/16	.0625
3/16	.1875
5/16	.3125
7/16	.4375
9/16	.5625
11/16	.6875
13/16	.8125
15/16	.9375
32ds	
1/32	.03125
3/32	.09375
5/32	.15625
7/32	.21875
9/32	.28125
11/32	.34375
13/32	.40625
15/32	.46875
17/32	.53125
19/32	.59375
21/32	.65625
23/32	.71875
25/32	.78125
27/32	.84375
29/23	.90625
31/32	.96875
64ths	
1/64	.015625
3/64	.046875
5/64	.078125
7/64	.109365
9/64	.140625
11/64	.171875
13/64	.203125
15/64	.234375
17/64	.265625
19/64	.296875
21/64	.328125
23/64	.359375
25/64	.390625
27/64	.421875
29/64	.453125
31/64	.484375
33/64	.515625
35/64	.546875
37/64	.578125
39/64	.609375
41/64	.640625
43/64	.671875
45/64	.703125
47/64	.734375
49/64	.765625
51/64	.796875
53/64	.828125
55/64	.859375
57/64	.890625
59/64	.921875
61/64	.953125
63/64	.984375

FIRST AID AND RESUSCITATION

Traumatic Shock

A severe injury to any part of the body causes shock. Shock is easier to prevent than to cure.

A. Every injured person is potentially in shock and should be treated as such whether symptoms are present or not.

B. Proper treatment of shock is as follows:

1. Patient should be kept warm, but not hot. In many cases the only first aid measure possible is to wrap the patient underneath as well as on top to prevent loss of body heat.

2. Keep body horizontal or, if possible, elevate feet twelve to eighteen inches. In any case, always keep the head low. The single exception is when a patient has a chest injury and has difficulty breathing. This patient should be kept horizontal with head slightly raised to make breathing easier.

3. Do not let patient sit up except as indicated in chest injury or where there is nosebleed. In case of head injury and possible skull fracture, keep patient level and do not elevate feet.

4. If patient is conscious, hot tea, coffee, or broth may be given in small quantities. Warmth helps combat shock.

5. Proper transportation constitutes the most important single measure in the prevention and treatment of shock. Use ambulance if possible. Otherwise, follow above points as closely as possible.

Resuscitation—General

Note: Below are two approved methods of artificial respiration. Mouth-to-mouth (nose) rescue breathing is preferred.

A. Seconds count. Begin artificial respiration immediately. In case of electric shock do not rush in and become a casualty yourself. Remove victim from electrical contacts, but do not move victim unless necessary to remove him from danger or place him in proper position for artificial respiration.

B. Stop hazardous flow of blood. (See six pressure points on page 72.)

C. Remove false teeth or any foreign objects or fluids from victim's mouth, with a cloth wrapped around your finger. Care should be taken that mucus or stomach contents do not clog air passages.

D. Have any help available perform the following:

1. Call a doctor and ambulance.

2. Loosen victim's clothing about neck, chest, and waist. Remove climbers and tools.

3. Keep victim warm. Use ammonia inhalants. Do not give liquids while victim is unconscious.

E. Continue resuscitation until victim is breathing without help or until there are positive signs of death, such as rigor mortis.

F. Change of operators when necessary should be done as smoothly as possible without breaking the rhythm. If victim must be moved, resuscitation should be continued without interruption.

G. Watch victim carefully after revival. Do not permit any exertion.

Resuscitation—Mouth-to-Mouth (Nose) Method

A. Place victim on back, head slightly downhill. A folded coat or blanket under victim's shoulders will help maintain proper position. Tilt head back, chin pointing upward.

B. Grasp victim's jaw and raise upward until lower teeth are higher than upper teeth. Or place fingers on both sides of jaw near ear lobes and pull upward. Maintain jaw position throughout resuscitation to prevent tongue from blocking air passage.

C. Pinch victim's nose with thumb and forefinger, take a deep breath and place your mouth over victim's mouth, making an air-tight contact.

Or close victim's mouth, take a deep breath, and place your mouth over victim's nose, making an air-tight contact. If you desire, place a porous cloth between you and victim. If an infant, place your mouth over its nose and mouth.

D. Blow into victim's mouth (nose) until his chest rises (blow gently if an infant). Remove your mouth to permit exhaling, turning your head to hear outrush of air. The first eight or ten breaths should be as rapid as victim will respond. Thereafter, rate should be about twelve times a minute (twenty times if an infant).

E. Things to remember:

1. If air cannot be blown in, check position of victim's head and jaw and recheck mouth for obstructions, then try more forcefully. If chest does not rise, turn victim face down, strike his back sharply to dislodge any obstruction, then repeat breathing procedure.

2. If air enters victim's stomach, swelling is evidenced. Expel by gently pressing down on stomach during exhalation.

Pole Top Resuscitation

A. Mouth-to-mouth (nose) resuscitation is preferred at pole top. Except for placement of victim, procedure is same as above.

B. Immediately apply mouth-to-mouth (nose) resuscitation to ventilate lungs. Fully inflate the lungs of the victim a number of times.

C. Check to determine if there is a pulse.

D. If pulse is detected, continue to apply resuscitation.

E. If no pulse is detected and it is possible to lower the victim in three or four minutes, get him off the pole.

F. If there is no pulse and victim cannot be lowered in three or four minutes, apply Oesterreich Method of pole top resuscitation (compression of victim's abdomen by a hugging action, directed toward victim's chest cavity).

Two Victim Method of Resuscitation— Mouth-to-Mouth (Nose)

Note: In rare instances two men are shocked, both requiring resuscitation and only one worker is available. In such a case use the following method.

A. Both victims should be placed on their backs with their heads almost touching and their feet in a straight line away from each other.

B. Procedures detailed above should be applied to each victim alternately. Cycle of inflation and exhalation does not change, so it will be necessary for the rescuer to work quickly to resuscitate both victims.

Back-Pressure Arm-Lift Method of Resuscitation

Note: This method should not be used on victim having a serious arm, shoulder, or upper back injury.

A. Place victim face down. Bend his elbows and place his hands one on top of the other. Turn his face to one side and place his cheek on his hands.

B. Check for open air passage. Remain on both knees, facing victim with one knee on each side of his head. (If desired, operator may place one knee at the side of the victim's head close to the forearm and the opposite foot near the elbow.)

C. Rock forward slowly to exert pressure until arms are almost vertical. Keep your elbows straight.

D. Release pressure by flexing your elbows. Rock back on your heels, sliding your hands up victim's back and out along his arms.

E. Grasp arms just above elbows and pull upward toward you until you feel resistance and tension.

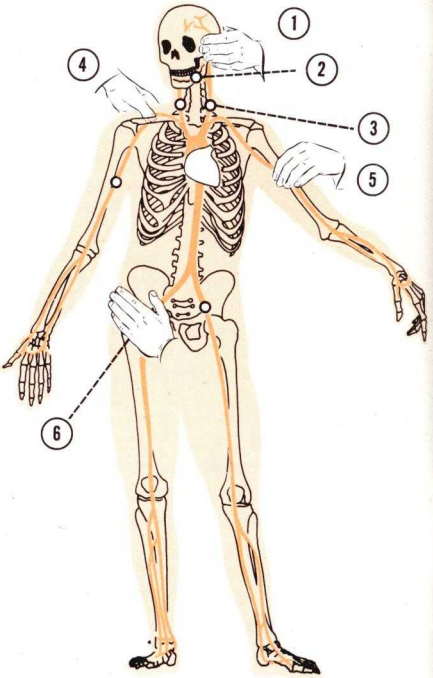
F. Lower victim's arms to the ground.

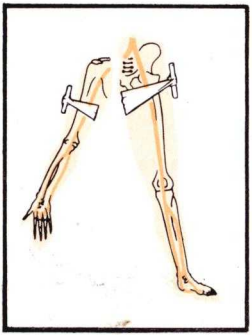
G. Repeat this cycle about twelve times per minute at a uniform rate. Compression and expansion phases should occupy an equal amount of time. Release periods should be of less duration.

6 Pressure Points* To Stop Arterial Bleeding

1. Temporal—Press just in front of the ear against the skull to stop bleeding on scalp and forehead.
2. Facial—Press up and out on under side of jaw about ⅓ distance between angle of jaw and chin.
3. Carotid—Press with fingers in the neck at side of the windpipe against the backbone, to stop bleeding in the neck or head. Control blood supply to brain; may be dangerous if shut off for more than 4-5 minutes.
4. Subclavian—Press behind inner third of the collar bone against the top rib, to stop bleeding around shoulder or in the arm.
5. Brachial—Press the inside of the upper arm, half way between the shoulder and elbow, to stop bleeding below this pressure point.
6. Femoral—Press with heel of hand in hollow of thigh with thumb in groin between upper thigh and belly.

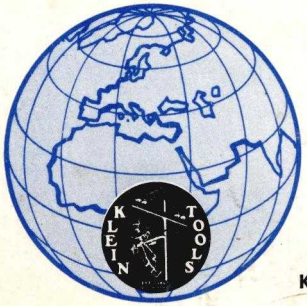
*Note: These six pressure points are found on each side of the body.





Tourniquets may be applied as shown, but only when other means of arresting blood flow fail or cannot be used. Once in place, they should be removed only by a physician.

RULES ON SAFETY, COURTESY OF BUREAU OF SAFETY AND TAKEN FROM THEIR PUBLICATION "SAFETY RULES."



KLEIN —*World Standard for quality*